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ABSTRACT

The Minnesota Gifted Education Master's Program (MGEMP), a project of the Minnesota State Department of Education, is designed to train elementary and secondary teachers for gifted education. The MGEMP had three specific objectives: (1) to teach candidates techniques for educating both achieving and underachieving gifted students; (2) to give candidates practicum experiences where these techniques could be applied through student-teacher interaction; and (3) to train leadership personnel who could plan, implement and conduct local, district or regional programs for high potential students. To achieve these goals, 25 MGEMP students participated in a special 10-week summer program, which granted 11 graduate credits in gifted education, four additional credits of practicum, and included presentations by 15 resource persons. The MGEMP evaluation included two measures of cognitive growth, measurement of participant attitudes toward gifted students, and a needs assessment of gifted education in Minnesota. Both cognitive measures showed significant growth in the participants' knowledge of gifted education. The attitude measures showed strong support for gifted programs, personal preference for teaching the gifted, and trends toward a clearer perception of the characteristics of gifted students. In the needs assessment, these teachers rated current programs in their own districts as inadequate on several dimensions. (Author/BW)

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Minnesota Gifted Education Master's Program: Evaluation Report, 1977

Minnesota State Department of Education

St. Paul, Minnesota

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Evaluation Report
by
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October 1977

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Introduction

As increasingly more attention is directed toward the need for special educational programs for gifted and talented students, it becomes more and more apparent that there is a concomitant need for programs designed to train teachers for gifted education. The Minnesota Gifted Education Master's Program (MGEMP), a project of the Minnesota State Department of Education, is a program designed to help meet this teacher education need. The following is a description of the MGEMP and an evaluation of the first year of the program.

Overview of the MGEMP

The MGEMP is a project of the Minnesota State Department of Education offered in cooperation with five Minnesota State Universities: Bemidji, Mankato, Moorhead, St. Cloud and Winona State Universities. Under this cooperative arrangement, MGEMP students earn 15 credits in gifted education during a special ten week summer program. During the subsequent three years they complete requirements for a Master's Degree in Gifted Education by fulfilling the Master's program requirements in the field of their choice (e.g., elementary education or secondary education) at one of the five cooperating schools. That university, in turn, grants the Master's Degree. Students who already have earned the Master's Degree may elect to enroll in the Specialist program at either Mankato or St. Cloud State Universities, an option which two of the MGEMP participants chose to exercise in 1977.

Goals of the MGEMP

The MGEMP was designed to achieve three goals:

1. To teach candidates techniques for educating both achieving and underachieving gifted students -- techniques developed to meet the particular cognitive and affective needs of these students.

2. To give candidates practicum experiences where these techniques may be applied through student - teacher interactions.

3. To train leadership personnel who could plan, implement and conduct local, district or regional programs for high potential students.

Activities designed to help students achieve these goals included formal courses, participation in local summer school programs for talented elementary and secondary school pupils, guest speakers, informal discussions and independent student projects. These components are described more fully in a later section of this report.

Administration and Funding

The MGEMP is one part of the Minnesota Component of the Multi-State Proposal for Gifted and Talented Students funded by Public Law 93:380. (The other part of the Minnesota Component is the Minnesota Talented Youth Mathematics Project.) The program is administered through the Minnesota State Department of Education and is coordinated by Lorraine Hertz, gifted education consultant. The 1977 project directors were Nancy Mason, former coordinator for the gifted for the South

Washington County (Minnesota) Public Schools, and Joseph Michel, biology teacher at Richfield (Minnesota) High School.

The budget for the 1977 summer program, the first year of the MGEMP, was $19,000. This amount included stipends of $500 for each of the 25 participants. The MGEMP students, in turn, paid tuition of $180 (15 credits at $12 per credit); required texts cost the student approximately $30.

Curriculum

Formal courses in aspects of gifted education were conducted at Hamline University, St. Paul, from June 14 to August 19, 1977. The 15 quarter credits were distributed as follows:

Practicum in Gifted Education	4 credits
Curriculum Development	3 credits
Teaching Strategies	3 credits
Resources and Program Organization	3 credits
Current Research	1 credit
Group Dynamics	1 credit

Four practicum experiences were available to the MGEMP participants: two elementary programs and two secondary programs. Each participant was assigned to one of the following:

Minneapolis Talented Youth Programs (Elementary)
White Bear Lake Gifted Summer Program (Elementary)
Twin Cities Institute for Talented Youth (Secondary)
St. Paul Public Schools Quest Program (Secondary)

MGEMP students spent mornings in these programs for six weeks from June 20 to July 29 in order to gain experience working with talented youth.

The five courses comprising the formal instructional dimension of the MGEMP summer program were conducted by individuals with specialization in the respective area. Since the courses carry graduate credit, each instructor must qualify as a regular or adjunct faculty member at one of the cooperating universities. Also, each university transfers the MGEMP summer credits to the student's transcript according to its own system of course numbers and designators. For further course descriptions, see Appendix D.

In addition to the regular instructional staff, 15 resource persons made special presentations during the summer program. These discussions covered the following topics:

Art
Career education
Contracts
Curriculum writing
Evaluation
Futures
Hilda Taba strategies
Israeli programs
Junior Great Books
Mathematics

Music
Private foundations
Reading
Science
School finance

Participants

Almost 300 persons requested information and/or applications for the MGEMP. A total of 59 completed applications were received. In order to select the 25 participants, applications were screened by the Minnesota State Advisory Committee for the Gifted, a committee of educators and lay persons appointed by the State Board of Education to consult regularly with the Gifted Education Coordinator. This Advisory Committee recommended a pool or participants to each of the five universities and each university made its own final selection of participants. The 25 MGEMP positions were distributed among the five schools in proportion to the number of students applying for the degree program at that university.

Twenty-four of the 25 participants completed the summer program. These persons were educators from throughout Minnesota whose duties included classroom teaching, teaching in special programs, and/or coordinating or directing special programs. These included eleven classroom teachers, ten teacher-directors of gifted education programs, and four teachers in special programs or of special classes for high potential pupils.

Approximately two-thirds of the participants reported having had some experience teaching gifted or talented pupils. Approximately one-fourth reported some experience with the development of programs for the gifted. Fewer than one-fifth reported any formal study (including independent study) in gifted education.

Scope of the Evaluation

In attempting to assess the success of the MGEMP, three principal questions were addressed:

1. How effective was the program in achieving the stated goals?

2. What are the attitudes of the MGEMP participants toward gifted pupils and toward gifted education?

3. What do the participants perceive to be the needs in gifted education in Minnesota?

One difficulty in evaluating the MGEMP is the uniqueness of the program and the consequent lack of comparative models. Thus the present evaluation strives to be descriptive especially when reporting participant attitudes and perceptions. Despite the difficulty in assessing and reporting these non-cognitive dimensions, it was deemed necessary to attempt to sample participant attitude since these attitudes and preferences would likely influence the direction of the individual's leadership and involvement in gifted education. Since the MGEMP participants are expected to assume leadership roles in gifted education, knowledge of their attitudes and perceptions would be useful both in examining the long-range effects of the program and in planning for future programs.

Effectiveness of the MGEMP

Assessment of the effectiveness of the MGEMP included two measures of cognitive growth. The first of these was a test designed by the Minnesota Gifted Education Coordinator to measure knowledge of psychological theories, recent research, successful programs, teaching strategies, materials and resources, and the characteristics and needs of gifted children. The second presented the participants with three hypothetical situations and requested them to suggest alternatives which might be employed to meet each student's needs. This ability to identify resources and alternatives was taken to be one indicator of the person's potential leadership in gifted education.

Cognitive Outcomes of the MGEMP

The test of knowledge about gifted education was administered on the first and last days of the program. The results of those two testings are shown in Figure 1. A total score of 120 was possible on the test. Figure 2 summarizes the pre-test and post-test performances of the students. A comparison of the two sets of test scores using the t-test for two related samples and a one-tail test of significance showed the gain to be significant at the .0005 level. Thus the students did significantly increase their knowledge during the program.

The second cognitive measure posed three problems as follows:

Situation A: A gifted child with special intellectual needs. (A kindergartener comes to school able to read at the fourth grade level.)

Situation B: A gifted child with social difficulties. (A very gifted eighth grader withdraws from his classmates and appears to have no friends.)

Situation C: A gifted child with study habit problems. (A gifted high school senior is skipping many classes.)

Student responses were evaluated by the Gifted Education Coordinator. An individual's score on each situation was the number of alternatives identified. Student responses on the first and last days of the program are represented in Figure 3. Class means for the three situations are reported in Figure 4. The results indicate that the students increased their ability to identify alternatives which might be employed to meet the special needs of gifted students. This is considered to be a necessary competency for leaders in gifted education.

In general, the two measures described above indicate that the MGEMP achieved its goal of increasing the student's knowledge of gifted education.

Participant Evaluation of the MGEMP

Another measure of the program's success is the participants' evaluation of their summer experience. According to their written expressions of their personal expectations at the beginning of the program, the students held three principal goals: (1) to increase their knowledge of gifted education including effective means of identifying gifted pupils and viable strategies for meeting their needs; (2) to improve their skills in working with gifted pupils; and (3) to increase their ability to write, design, implement or improve programs for the gifted.

Figure 1

Student Performance on Cognitive Tests

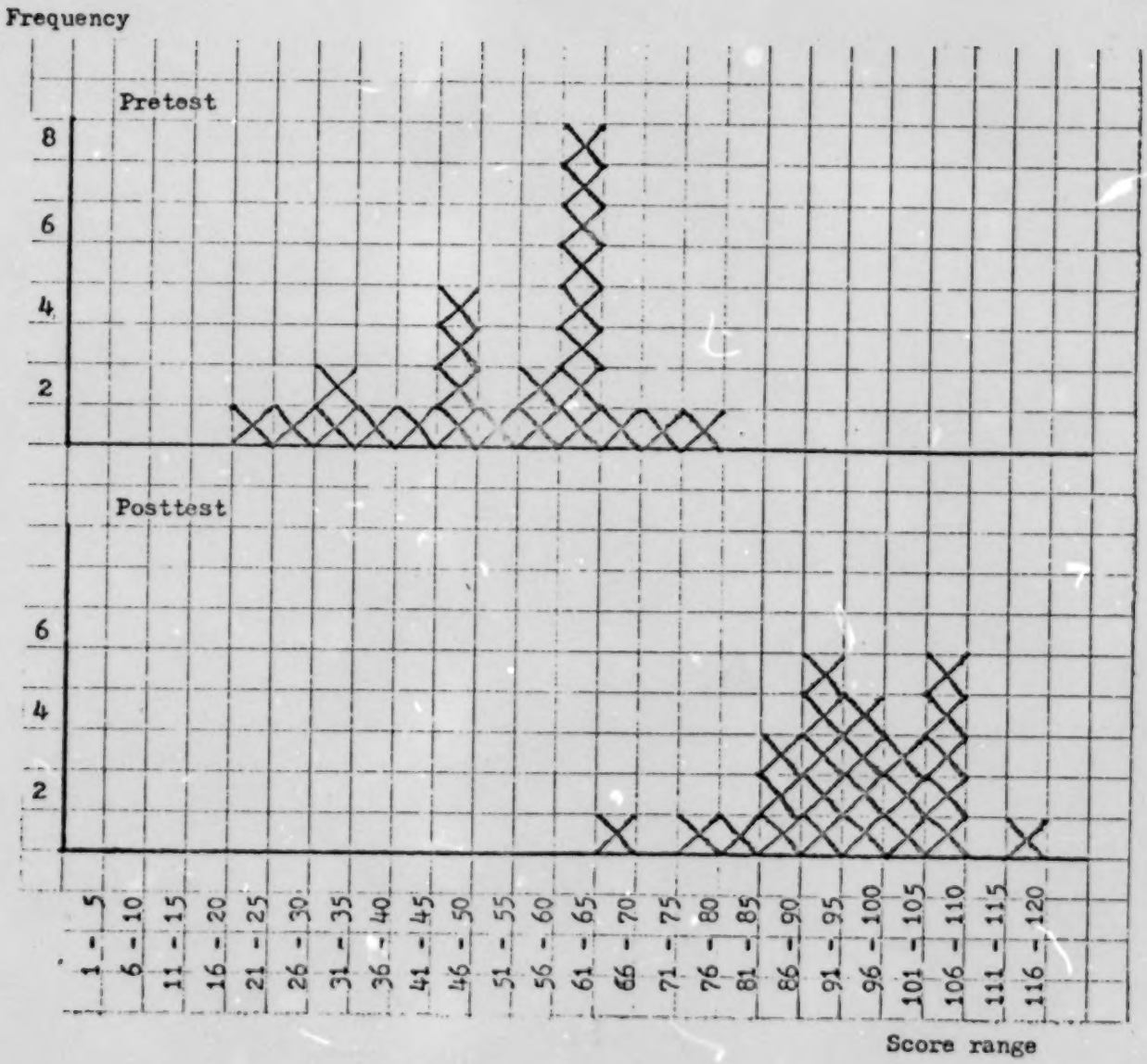


Figure 2

Cognitive Growth of MGEMP Students

Pre-test Mean	53.6
Standard Deviation	14.7
Pre-test Mean	96.0
Standard Deviation	11.4
Mean Gain	42.4
N	24
t	17.2
Degrees of freedom	23
Significance (One tail test)	$p < .0005$

Figure 3

Student Identification of Alternatives

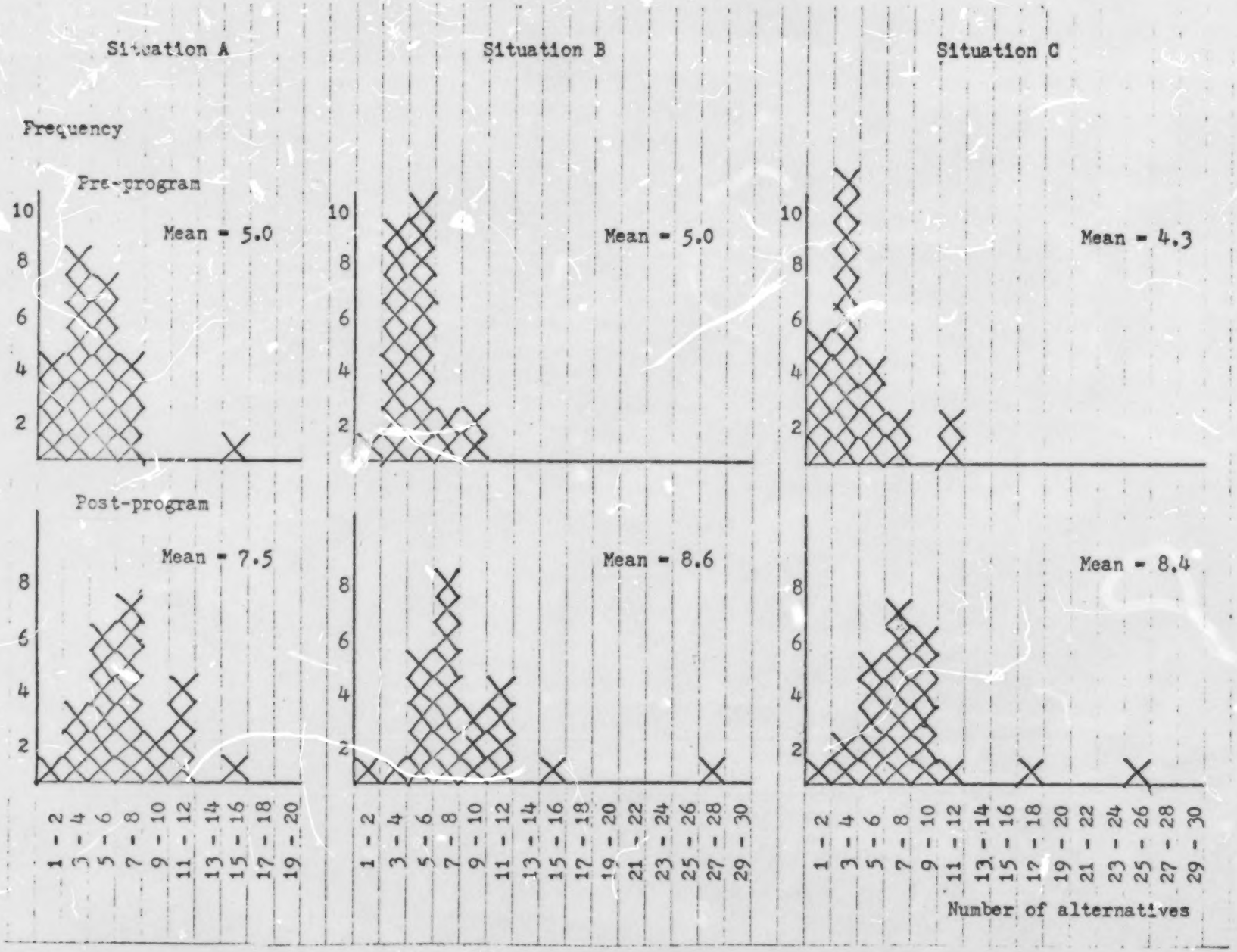


Figure 4

MGEMP Class Means: Identification of Alternatives

	Situations (Number of Alternatives Identified)		
	A	B	C
Pre-program Mean	5.0	5.0	4.3
Standard deviation	2.9	2.0	2.6
Range	1-16	1-9	2-11
Post-program Mean	7.5	8.6	8.4
Standard deviation	3.2	4.9	4.9
Range	2-15	2-27	2-26
Mean gain	2.5	3.6	4.1

Written statements at the end of the program indicated that the participants were satisfied that the MGEMP had helped them achieve these objectives. More specifically, they projected the following changes in their own behavior as a result of the MGEMP experience:

First, they expected to improve their overall instruction by more careful planning of teaching strategies, by more attention to providing alternatives for students, and by more frequent and systematic self-evaluation.

Second, they expected to change their teaching for gifted students by placing more emphasis on higher level thinking and problem solving.

Third, they viewed themselves as more knowledgable and confident and consequently they wrote of plans for sharing their knowledge and ideas with others and for facilitating the professional development of colleagues in their local schools or districts.

The participants also were asked to list in order what they perceived to be the three greatest strengths and the three greatest weaknesses of the MGEMP. The weighted totals for the 24 participants yielded the following (in rank order, greatest first):

Outstanding strengths of the MGEMP

1. The other students in the program and the opportunity to share professional interests and experiences;
2. The instructional staff and the various resource persons;
3. The curriculum content of the MGEMP.

Greatest weaknesses of the MGEMP:

1. Topics of specific interest to individuals which were not covered sufficiently or which were treated inappropriately;
2. Too little time for peer interaction;
3. Certain speakers identified by the participants as ineffective.

Finally, participants completed a rating scale in which they evaluated specific aspects of the MGEMP. That rating scale and the class's response are given in Figure 5.

Participant Perceptions and Attitudes

The MGEMP program directors were concerned about the attitudes of the participants toward gifted education and toward gifted children since these attitudes will likely influence the nature and extent of the educators' leadership in the future. In surveying these affective dimensions, the intent was to collect and report information which might describe the attitudes expressed by such a group concerned about gifted education. It is viewed as formative data which will be useful in designing future educational experiences for these or other persons.

Attitudes toward gifted education

The MGEMP students responded to 20 statements about gifted education by indicating their agreement on a four point scale (strongly agree, agree, disagree, strongly disagree). The 20 statements sampled their attitudes toward various alternatives for

Figure 5

Participant Rating of the MGEMP

(Bands represent class means plus and minus one standard deviation.)

Please rate the following aspects of the MGEMP according to the following scale: 7= Outstanding, 6= Very Good, 5= Good 4= Adequate, 3= Weak, 2= Very Weak, 1= Extremely Weak

1. Overall quality of the instruction

Value to you of the following program components:

2. Curriculum development course
3. Research topics
4. Group dynamics
5. Teaching strategies
6. Organization course
7. Practicum
8. Appropriateness of the overall program
9. Degree to which the program met your expectations
10. Effectiveness of texts and curriculum materials
11. Organization and management of the program
12. Length of the program
13. Hamline University setting
14. Classrooms and instructional space
15. Housing and food service
16. Planned evening and afternoon activities

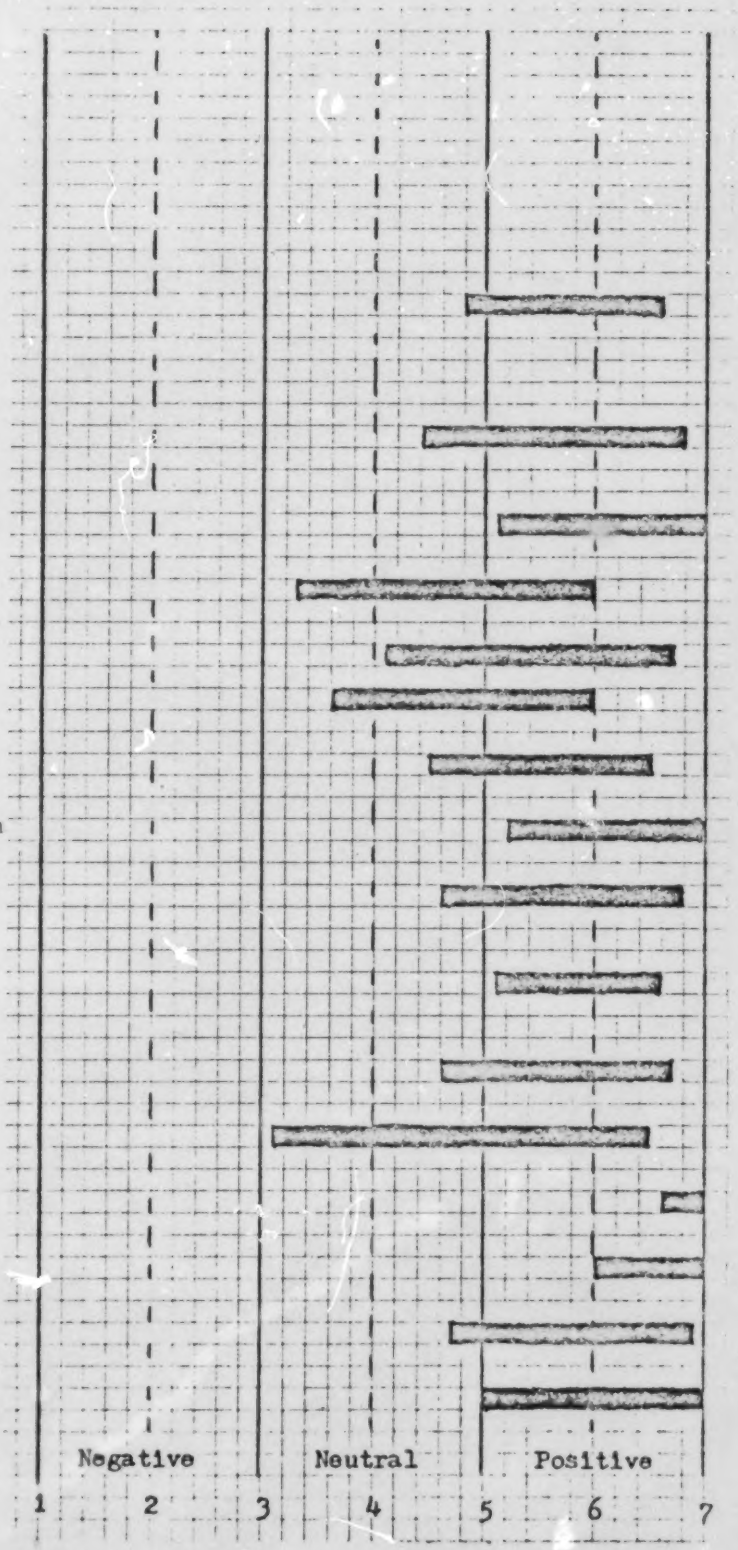


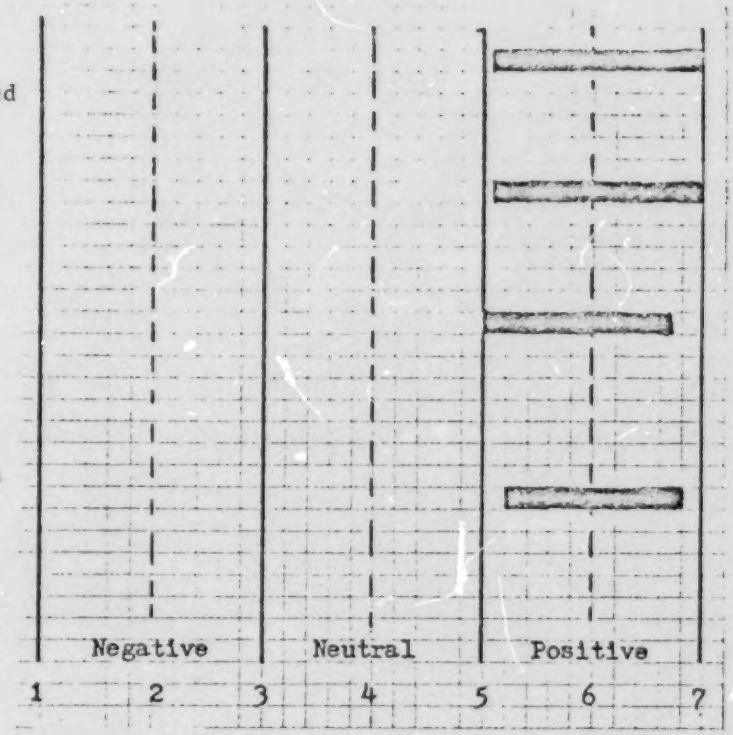
Figure 5
(continued)

17. Extent to which the program has increased your understanding of the needs and goals of teaching the gifted

18. Extent to which the program has helped improve your attitude toward teaching the gifted

19. Extent to which the program has helped increase your ability to plan and implement appropriate learning experiences for gifted students

20. Extent to which the program has broadened your knowledge of resources available for teaching gifted students in your subject area or grade level



structuring gifted education (items 1-10); their expectations about the outcomes of some alternatives (items 11-13); their assessment of the provisions for the gifted in their respective schools (items 14-15); and their personal preferences for working with gifted students (items 16-20).

Figure 6 reports the students' attitudes on these twenty items on the first and last days of the MGEMP. In general, their attitudes tend toward agreement with the statements with five exceptions: they expressed mixed opinions on grade skipping and on mainstreaming and they expressed disagreement with the adequacy and appropriateness of gifted education in their own schools. They also disagreed with the suggestion that gifted students in special programs may miss some of the basics of education.

On the other hand, they were strongly in favor of gifted education programs and tended to support the most common alternatives: grouping, enrichment, special curricula, independent study. In addition, their attitudes toward acceleration and/or grade skipping, while mixed, tended to be more supportive after the MGEMP than at the beginning. They also expressed personal preference for teaching gifted children.

A comparison of the participants' responses at the beginning and end of the MGEMP also indicated a tendency to express a stronger degree of agreement after the program. This may suggest that the students had clarified some of their own ideas during the program and were more inclined to express opinions about them.

When asked to rank their choices for the class they would prefer to teach, 72 percent chose "a class of exceptionally bright students" as either their first or second preference; 84 percent selected "a class of above average students" as either first or second choice. These responses were given at the beginning of the MGEMP. The rankings at the end of the program were similar: "exceptionally bright" and "above average" were the first or second choices of 87 and 78 percent, respectively.

For the MGEMP group as a whole, the teaching preferences both before and after the summer programs were as follows:

1. A class of exceptionally bright students
2. A class of above average students
3. A class of students with a wide range of ability
4. A class of average students
5. A class of below average students
6. A class of students with severe learning difficulties

Attitudes toward gifted children

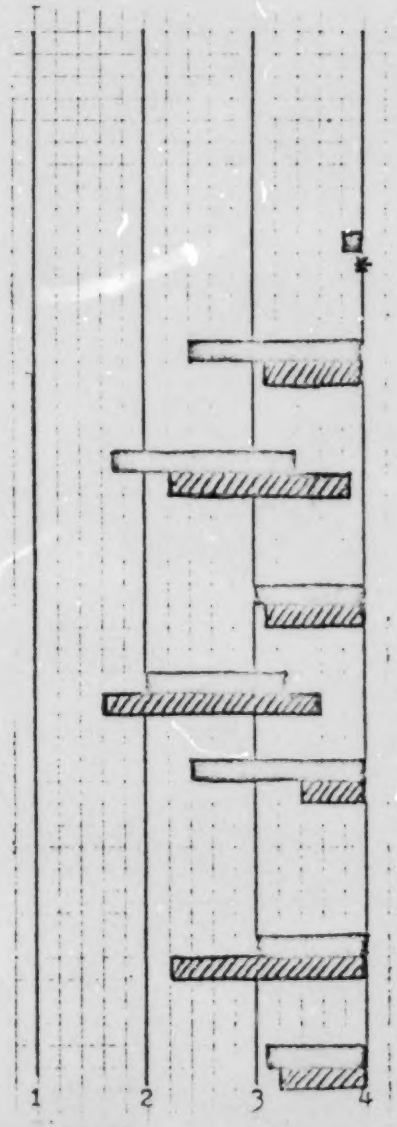
Recently several studies have been reported which attempted to determine attitudes and stereotypes about gifted pupils which are held by various persons. (See, for example, Haier and Solano, 1976; Solano, 1977; Cohn, 1977; George, 1977.) This concern for the attitudes of teachers of the gifted rests on the assumption that negative or inaccurate perceptions can impede both the identification of gifted pupils and the implementation of provisions to meet their needs. Since the MGEMP participants were a select group of educators with special interests in gifted education, a similar assessment of their attitudes toward gifted children could add to the knowledge in this area.

One instrument which has been used in several of the studies of attitudes and stereotypes is the Adjective Check List (ACL) (Gough, 1960). The ACL presents 300

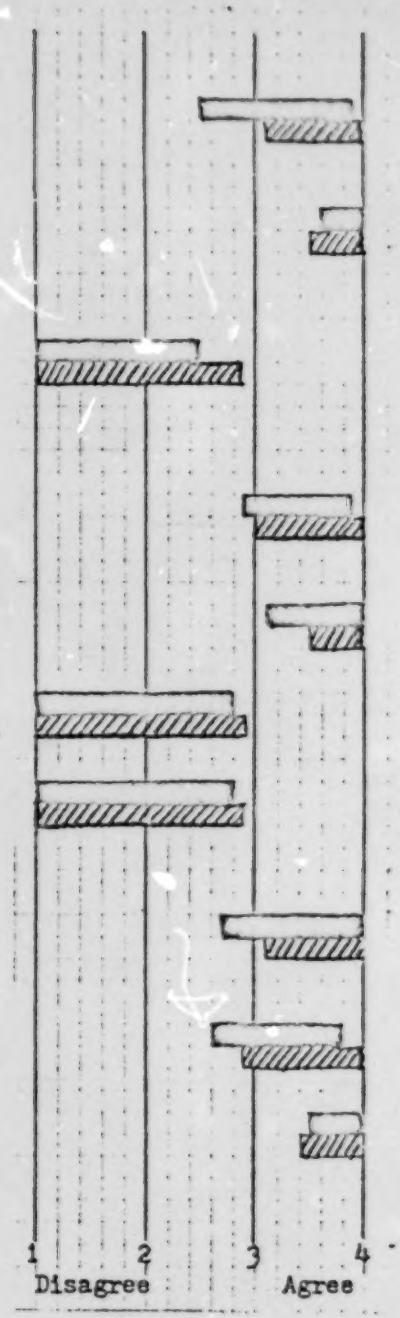
Figure 6

Participant Attitudes Toward Gifted Education

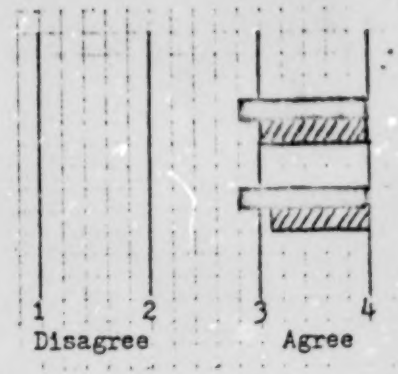
Statement	Percentage Agreement							
	Pre-program				Post-program			
	SD	D	A	SA	SD	D	A	SA
1. Gifted students should be given special attention in education.			4	96				100
2. Gifted students should be grouped in special classes with others of similar ability.		20	40	40		4	26	70
3. Gifted students should be encouraged to accelerate and to skip grades or courses.	8	44	32	16	5	18	45	32
4. Gifted students should be given enrichment activities outside the regular class.		4	32	64		4	26	70
5. Gifted students should be kept in the mainstream class.		41	50	9	15	30	35	20
6. Gifted students should have a specially designed currciulum.	8	6	38	48			19	81
7. Gifted students should be encouraged to pursue academic activities related to their particular interests or abilities.			48	52	13	4	22	61
8. Gifted students should be encouraged to do independent study projects.			44	56			30	70



	SD	D	A	SA	SD	D	A	SA
9. Gifted students should be encouraged to learn in their own way.		14	50	36		2	34	64
10. We need more programs for gifted students.			12	88			13	87
11. If gifted students are placed in a special class or program they are likely to miss some of the important basics of education.	44	36	20		43	33	14	10
12. When gifted students are placed in special educational programs, the quality of their academic work improves.			64	36			50	50
13. When gifted students are placed in special educational programs, their attitudes toward learning improves.			37	63			14	86
14. In my school, the provisions for gifted students are appropriate.	40	40	12	8	46	27	18	9
15. In my school, the provisions for gifted students are adequate.	40	40	12	8	44	30	17	9
16. I would prefer to have gifted students work with peers of similar ability.		10	44	46		6	22	72
17. I would prefer to have gifted students work with peers of similar interests.		10	62	28		4	44	52
18. As a teacher, I enjoy working with gifted students.			16	84			17	83



	SD	D	A	SA	SD	D	A	SA
19. As a teacher, I prefer to work with gifted students.		8	40	52		9	17	74
20. As a teacher, I feel competent to work with gifted students.		4	52	44			43	57



SD = Strongly disagree

D = Disagree

A = Agree

SA = Strongly agree

Bands represent class means plus and minus one standard deviation

Pre-program response

Post-program response

adjectives and asks respondents to check those which apply to the person or persons being rated. Of these 300 adjectives, 75 have been analyzed as "favorable" and 75 as "unfavorable", and scoring procedures enable one to classify the respondent as having either a positive or a negative attitude toward the person(s) under consideration.

An adaptation of the ACL technique was used with the MGEMP group. Only the 150 favorable and unfavorable adjectives, listed in alphabetical order, were presented to the respondents. (These adjectives are given in Appendix E.) Because the other 150 neutral adjectives were not included, one cannot score this modified ACL (MACL) in the usual manner. However, one can examine the adjectives and the frequency with which they were selected and in that way gain some descriptive information about the raters' attitudes.

In all, four administrations of the MACL were conducted, two on the first day and two on the last day of the program. These can be described as follows:

"Typical-Pre" (T-Pre): Students were asked to check the adjectives which describe the "typical gifted child."

"Individual-Pre" (I-Pre): Students were asked to check the adjectives which describe the "most gifted pupil I have known."

"Typical-Post" (T-Post): Students were asked to check the adjectives which describe the "typical gifted child."

"Individual-Post" (I-Post): Students were asked to check the adjectives which describe a specific gifted child with whom they had worked during the MGEMP practicum. They also identified the child being rated by first name, age and sex.

Figures 7 through 10 show the favorable adjectives selected by at least 75 percent of the respondents and the unfavorable adjectives selected by at least 25 percent of the respondents on the four administrations of the MACL. (In some cases percents have been lowered slightly to 74 or 24 percent to correspond to the nearest whole number of persons responding.) Figure 11 summarizes the ten most frequent favorable adjectives and the five most frequent unfavorable adjectives for the four administrations.

The respondents chose many more favorable than unfavorable adjectives in every case. This tendency is reported to be common among persons responding to the ACL. For the typical student, they selected more favorable and more unfavorable descriptors at the end of the program than they did at the beginning while for the individual gifted student the number of both favorable and unfavorable adjectives remained fairly stable. The mean numbers of adjectives selected on the four administrations of the MACL are shown in Figure 12. Since the I-Post reaction was directed to a specific pupil identified by age and sex, a similar comparison is possible of the numbers of adjectives checked according to the age and sex of the individual being rated. Figure 13 reports those data. It shows that more total adjectives and more favorable adjectives were attributed to girls than to boys while more unfavorable adjectives were applied to boys. Similarily, more favorable adjectives were recorded for children under age 12 than for children 12 and over, while more unfavorable adjectives were applied to those 12 and over.

Comparisons of the adjectives common to T-Pre and T-Post lists and to the I-Pre and I-Post lists, as recorded in Figure 11, showed that the common adjectives tended to be rather stable with respect to the percent of respondents choosing each. In

Figure 7

Most Frequent Adjectives: T-Pre Rating

Favorable Adjectives	Percent Selecting	Unfavorable Adjectives	Percent Selecting
Imaginative	93	Argumentative	76
Intelligent	93	Opinionated	59
Capable	90	Impatient	28
Curious	90	Self-centered	24
Confident	86		
Alert	83		
Active	79		
Clever	79		
Energetic	79		
Inventive	79		
Ambitious	76		
Clear thinking	76		
Independent	76		
Interest wide	76		
Original	76		

Figure 8

Most Frequent Adjectives: I-Pre Rating

Favorable Adjectives	Percent Selecting	Unfavorable Adjectives	Percent Selecting
Healthy	97	Argumentative	55
Confident	93	Opinionated	45
Intelligent	93	Egotistical	34
Curious	90	Careless	31
Active	86	Cynical	31
Alert	86	Arrogant	24
Ambitious	86	Boastful	24
Attractive	86	Impatient	24
Capable	86		
Clear thinking	86		
Imaginative	86		
Interests wide	79		
Good looking	76		
Honest	76		
Independent	76		
Industrious	76		

Figure 9

Most Frequent Adjectives: T-Post Rating

Favorable Adjectives	Percent Selecting	Unfavorable Adjectives	Percent Selecting
[illegible]	100	Opinionated	87
Ambitious	100	Argumentative	70
Intelligent	100	Egotistical	39
Capable	96	Self-centered	30
Confident	96	Fault-finding	26
Independent	96	Impatient	26
Active	91	Show-off	26
Imaginative	91		
Interests wide	91		
Pleasant	91		
Adventurous	87		
Conscientious	87		
Cooperative	87		
Dependable	87		
Energetic	87		
Enthusiastic	87		
Healthy	87		
Humorous	87		
Clear thinking	83		
Mature	83		
Clever	78		
Reliable	78		
Responsible	78		
Adaptable	74		
Cheerful	74		
Curious	74		
Friendly	74		
Honest	74		
Inventive	74		
Original	74		
Sociable	74		
Wise	74		

Figure 10

Most Frequent Adjectives: I-Post Rating

Favorable Adjectives	Percent Selecting	Unfavorable Adjectives	Percent Selecting
Intelligent	96	Opinionated	35
Independent	91	Self-centered	35
Active	87	Argumentative	26
Capable	87		
Curious	87		
Honest	83		
Alert	78		
Healthy	78		
Imaginative	78		
Interests wide	78		
Clear thinking	74		
Confident	74		
Dependable	74		
Friendly	74		
Sociable	74		

Figure 11

Summary of Most Frequent Adjectives

	Typical Gifted Student		Individual Gifted Student	
	Favorable	Unfavorable	Favorable	Unfavorable
Pre-MGEMP	Imaginative Intelligent Capable Curious Confident Alert Active Clever Energetic Inventive	Argumentative Opinionated Impatient Self-centered	Healthy Confident Intelligent Curious Active Alert Ambitious Attractive Capable Clear thinking Imaginative	Argumentative Opinionated Egotistical Careless Cynical
Post-MGEMP	Alert Ambitious Intelligent Capable Confident Independent Active Imaginative Interests wide Pleasant	Opinionated Argementative Egotistical Self-centered	Intelligent Independent Active Capable Curious Honest Alert Healthy Imaginative Interests wide	Opinionated Self-centered Argumentative

Figure 12

Mean Numbers of Adjectives Selected from the MACL

	Typical Gifted Student	Individual Gifted Student
Pre-program rating:		
Mean number of	45.0	55.0
Total adjectives	39.8	49.2
Favorable adjectives	5.2	5.8
Unfavorable adjectives		
Post-program ratings		
Mean number of		
Total adjectives	53.0	53.1
Favorable adjectives	46.5	48.5
Unfavorable adjectives	6.5	4.6

Figure 13

Mean Numbers of Adjectives Chosen by Age and Sex

Individuals Being Rated	Mean Number of Favorable Adjectives	Mean Number of Unfavorable Adjectives	Mean Number of Total Adjectives
Female (N=9)	56.0	2.3	58.3
Male (N=12)	43.7	6.1	49.8
Under Age 12 (N=9)	53.6	1.5	55.1
Age 12 or older (N=12)	45.7	7.2	52.9

most cases the difference is ten percent or less. Such common adjectives between the T-Pre and T-Post ratings were:

imaginative	(93%, 91%)
intelligent	(93%, 100%)
capable	(90%, 96%)
confident	(86%, 96%)
alert	(83%, 100%)
active	(79%, 91%)
argumentative	(76%, 70%)
opinionated	(59%, 87%)

Those showing greatest changes, all increases. were "alert", "active" and "opinionated". Of greater interest may be the nine adjectives which showed rating changes of 25 percent or more, all increasing at the end of the MGEMP. In addition to "opinionated", the list includes:

pleasant	(38%, 91%)
cooperative	(45%, 87%)
adaptable	(34%, 74%)
conscientious	(48%, 87%)
dependable	(48%, 87%)
cheerful	(41%, 74%)
reliable	(52%. 78%)
egotistical	(14%, 39%)

A similar comparison of I-Pre and I-Post ratings showed nine common adjectives:

healthy	(97%, 78%)
intelligent	(93%, 96%)
curious	(90%. 87%)
active	(86%, 87%)
alert	(86%, 78%)
capable	(86%, 87%)
imaginative	(86%, 78%)
argumentative	(55%, 26%)
opinionated	(45%, 35%)

Only "healthy" and "argumentative" showed changes (decreases) in excess of ten percent. However, four other adjectives had frequency changes of 25 percent or more:

careless	(31%, 0%)
attractive	(86%, 57%)
self-centered	(7%, 35%)
egotistical	(34%, 9%)

A third interesting comparison is between the pre-program ratings of typical and individual gifted. There nine adjectives were common to T-Pre and I-Pre lists. None of the favorable adjectives differed by more than seven percent. The unfavorable adjectives were less frequently applied to individuals. The common adjectives and the (T-Pre, I-Pre) percentages were:

confident	(86%, 93%)
intelligent	(93%, 93%)
curious	(90%, 90%)
active	(79%, 86%)
alert	(83%, 86%)
capable	(90%, 86%)
imaginative	(93%, 86%)
argumentative	(76%, 55%)
opinionated	(59%, 45%)

Only four adjectives showed changes of 25 percent or more:

attractive	(34%, 86%)
good looking	(31%, 76%)
healthy	(69%, 97%)
careless	(3%, 31%)

Thus it seems that at the beginning of the program the "most gifted student" resembled very closely the "typical" gifted except that the individual was remembered for his or her physical traits. This may also represent a tendency to not focus clearly on one person as "most gifted."

In the I-Post rating the individual gifted pupil was a specific person whose name was written on the rating sheet. In this case, the T-Post vs I-Post comparison showed many more marked differences. Ten adjectives were common among those frequently given on the T-Post and I-Post ratings:

intelligent	(100%, 96%)
independent	(96%, 91%)
active	(91%, 87%)
capable	(96%, 87%)
alert	(100%, 78%)
imaginative	(91%, 78%)
interests wide	(91%, 78%)
opinionated	(87%, 35%)
self-centered	(30%, 35%)
argumentative	(70%, 26%)

While "alert", "imaginative", and "interests wide" were more frequently applied to the typical gifted (ie, differences of more than 10 percent), the most notable differences were those associated with "opinionated" and "argumentative." For both, the percentage more than doubled when the unfavorable adjective was applied to a typical gifted as

opposed to a named individual. Other adjectives with differences of at least 25 percent were:

pleasant	(91%, 52%)
ambitious	(100%, 65%)
humorous	(87%, 52%)
original	(74%, 43%)
wise	(74%, 43%)
conscientious	(87%, 57%)
egotistical	(39%, 9%)
adventurous	(87%, 61%)
reliable	(78%, 52%)

The pattern of these responses suggests a tendency to be more conservative when rating a real, specific gifted child rather than some hypothetical "typical" one.

A closer look at the I-Post ratings yields other interesting response patterns. Since the subjects rated were identified by sex and age, it is possible to look for trends in the respondents' ratings. Although the number of subjects rated was small, the responses given suggest that certain stereotypes may exist among the MGEMP participants and that further investigation would be useful. In all, 21 individuals were identified by sex and age as follows:

	Boys	Girls	Total
Under 12	5	4	9
12 and older	7	5	12
Total	12	9	21

As reported in Figure 13, the nine MGEMP participants who chose to rate gifted girls checked an average of 56 of the 75 favorable adjectives. All 75 favorable adjectives were checked at least four times; 72 of the 75 were checked by more than half the respondents. Only one unfavorable adjective was checked by half the respondents; four unfavorable ones were checked by two persons, 12 by one, and 58 by no one. Of the 12 unfavorable adjectives receiving only one check, nine were from the same respondent.

By contrast, an average of 44 favorable adjectives were used to describe the 12 boys, but an average of six unfavorable ones were applied to the boys as compared to two unfavorable ones for girls. Thirty-nine of the 75 favorable adjectives were chosen by more than half of those rating boys, just slightly more than half of the number with a similar ranking for ratings of girls. However, 49 unfavorable adjectives received one or more checks when boys were rated compared to 17 when girls were rated. For boys, ten unfavorable adjectives were chosen by at least 25 percent of the respondents; for girls, one was selected by more than one-fourth the raters. Although the subjects rated were 12 boys and only 9 girls, the responses do suggest a tendency toward more positive stereotypes of gifted girls and more negative stereotypes of gifted boys. Figure 14 reports 26 adjectives for which the boy-girl ratings differed by at least 25 percent: 21 of the 22 favorable adjectives were weighted toward the girls; one favorable and four unfavorable adjectives were weighted toward the boys.

Comparisons of the descriptions given of gifted pupils under age 12 with those for 12 and older show fewer differences. The numbers of favorable adjectives selected by at least 75 percent of the respondents were 29 for the younger pupils, 26 for the older. However, in the case of unfavorable adjectives, differences were apparent.

Figure 14

MGEMP Ratings of Gifted Individuals
Contrasted by Sex*

Adjective	Percent Applying Given Adjective		Percent Difference
	to Boys	to Girls	
Favorable adjectives			
Poised	33	100	67
Generous	17	78	61
Artistic	25	78	53
Clever	50	100	50
Natural	50	100	50
Attractive	42	89	47
Conscientious	42	89	47
Affectionate	33	78	45
Fair minded	33	78	45
Versatile	50	89	39
Organized	42	78	36
Understanding	42	78	36
Alert	67	100	33
Clear thinking	67	100	33
Considerate	58	89	31
Mature	58	89	31
Reliable	58	89	31
Sincere	58	89	31
Thoughtful	58	89	31
Sociable	50	78	28
Adventurous**	83	56	27
Resourceful	75	100	25
Unfavorable adjectives			
Bossy	42	0	42
Self - centered	33	0	33
Show off	33	0	33
Sulky	25	0	25

*Only adjectives showing differences of at least 25 percent are reported.

**Only favorable adjective in this list applied more frequently to boys

Ten unfavorable adjectives were used by at least 25 percent of the MGEMP respondents when describing gifted individuals 12 and older. None of the unfavorable adjectives reached the 25 percent level when applied to pupils under 12. For the younger pupils the highest frequency for unfavorable adjectives was 22 percent which occurred six times. Further, the number of unfavorable adjectives checked by one or more raters of older pupils was more than double the number similarly selected by raters of the younger group: 49 used to describe those 12 and older, 23 for those under 12. Figure 15 shows the 13 adjectives which differed by at least 25 percent of the ratings across age levels. The trend is toward more negative views of older pupils and toward differing positive perceptions across age groups.

If it also interesting to note the large number of adjectives checked by 100 percent of the MGEMP respondents in each category, especially those applied to girls. Figure 16 reports the highest frequency adjectives for the four age-sex groups.

Despite the small number of gifted individuals being rated by the MGEMP students, there is evidence to suggest that certain attitude trends or stereotypes may exist among educators interested in gifted education, and further investigations of the nature of these tendencies would be warranted.

Needs Assessment of Gifted Education in Minnesota

The final aspect of the MGEMP evaluation was an attempt to assess the needs for gifted education in Minnesota as perceived by this group of educators with special interests and involvement in that area. To this end the Gifted Education Coordinator for the State Department of Education developed an assessment instrument based on materials she had acquired at a 1975 Leadership Training Institute conducted by the Illinois Office of Education. Results of the needs assessment as compiled from the MGEMP responses are reported below.

Perceptions of gifted education programs

The first section called for respondents to rate current programs in their school districts for their adequacy in meeting the needs of both the academically (questions 1-6) and the creatively (questions 7-10) talented. These ratings are reported in Figure 17. In the second section, students rated the provisions for the gifted in their own schools. These are shown in Figure 18. It would appear from these two sets of responses that the students felt somewhat more positive about efforts in their own schools than they did about district provisions. Perhaps that is because they were more familiar with their home school activities.

Another view of the provisions being made for gifted students is suggested by the respondents' descriptions of the reward structure in their respective schools. These are seen in Figure 19. The pupil talents described in the rating included scholarship (#1-2), special abilities (#3-11), leadership (#12-16), divergent thinking (#17), athletic or kinesthetic ability (#18-19), and personal traits (#20).

The personal opinions and recommendations of the MGEMP educators also were sampled. These are reported in Figure 20 and include both opinions about programs for the gifted (items 1-5) and recommendations for gifted education (items 6-10) Figure 21 shows the priorities placed by the MGEMP students upon several dimensions of educational services.

Teacher strategies for identifying gifted students

In addition to the need for adequate and appropriate education opportunities for gifted and talented students there is a constant need for effective measures

Figure 15

MGEMP Ratings of Gifted Individuals
Contrasted by Age*

Adjective	Percent Applying Given Adjective		Percent Difference
	to Pupils Under 12	to Pupils 12 and Older	
Favorable adjectives			
Affectionate	78	33	45
Confident	56	92	36
Conscientious	44	75	31
Good natured	89	58	31
Thoughtful	89	58	31
Attractive	78	50	28
Self-controlled	78	50	28
Mature	56	83	27
Curious	100	75	25
Unfavorable adjectives			
Impatient	0	42	42
Opinionated	22	58	36
Aloof	0	25	25
Cynical	0	25	25

*Only adjectives showing differences of at least 25 percent are reported.

Figure 16

Most Frequent Adjectives by Age and Sex of Subject*

	Boys		Girls	
	Favorable Adjectives	Unfavorable Adjectives	Favorable Adjectives	Unfavorable Adjectives
Under Age 12	(N=5) Active (100) Adventurous (100) Capable (100) Curious (100) Independent (100) Intelligent (100)	Arrogant (40) Self-centered (40) Show-off (40)	(N=4) Alert (100) Attractive (100) Capable (100) Clear thinking (100) Clever (100) Considerate (100) Cooperative (100) Curious (100) Dependable (100) Good natured (100) Independent (100) Interest wide (100) Natural (100) Poised (100) Resourceful (100) Stable (100) Thoughtful (100) Versatile (100)	opinionated (50)
Age 12 and Older	(N=7) Intelligent (100) Capable (86) Confident (86) Curious (86) Energetic (86) Imaginative (86) Independent (86)	Bossy (57) Impatient (57) Opinionated (57) Arrogant (29) Moody (29) Self-centered (29)	(N=5) Active (100) Alert (100) Capable (100) Clear thinking (100) Clever (100) Confident (100) Conscientious (100) Fair minded (100) Honest (100) Independent (100) Intelligent (100) Mature (100) Natural (100) Poised (100) Reasonable (100) Reliable (100) Resourceful (100) Responsible (100) Sincere (100) Wise (100)	opinionated (60) aloof (40) cynical (40)

*From I-Post Ratings. Numbers given are percents of respondents selecting that adjective.

Figure 17

Needs Assessment of District Programs

How would you rate the following items?

1. The effectiveness of the general academic program in meeting the needs of the academically talented students?

2. The ability of the school personnel to provide adequate, challenging programs for the academically gifted students in their classes?

3. The provisions for offering special or advanced learning programs for the academically talented student?

4. The utilization of community persons other than the school staff in meeting the needs of the academically gifted youth?

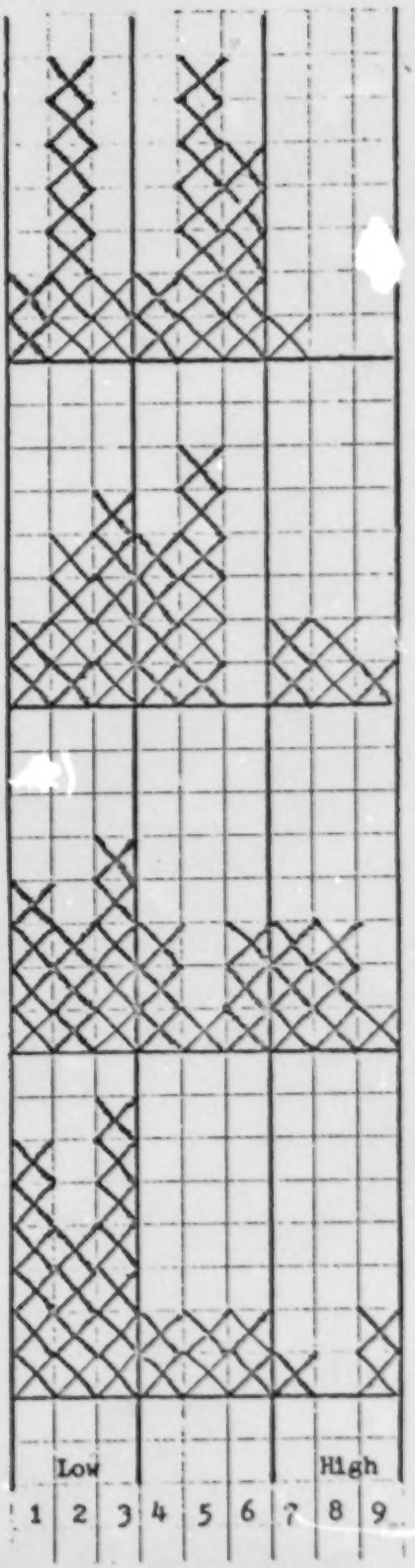


Figure 17
(continued)

5. The provisions for scholarships, awards citations, etc. for the academically talented upon graduation?

6. The counseling and guidance for the academically gifted students?

7. The general instructional program in meeting the needs of the creatively talented high school student?

8. The provisions for offering special or advanced learning programs for the creative talent as opposed to the academically talented student?

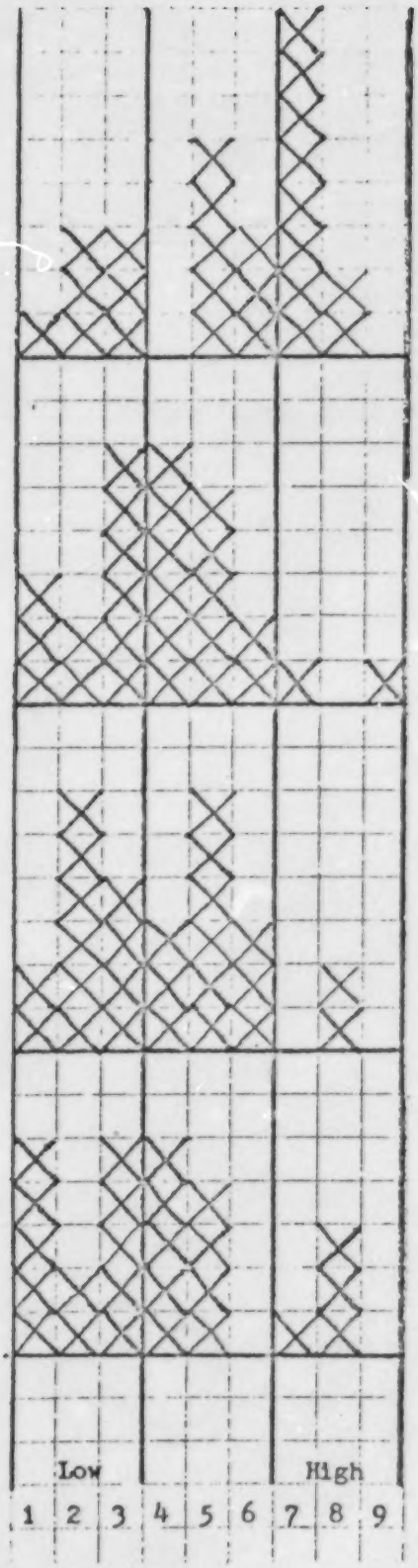


Figure 17
(continued)

9. The utilization of community persons other than the school staff in meeting the needs of creatively talented student.

10. The provisions for scholarships, awards, citations, etc. for the creatively talented student upon graduation?

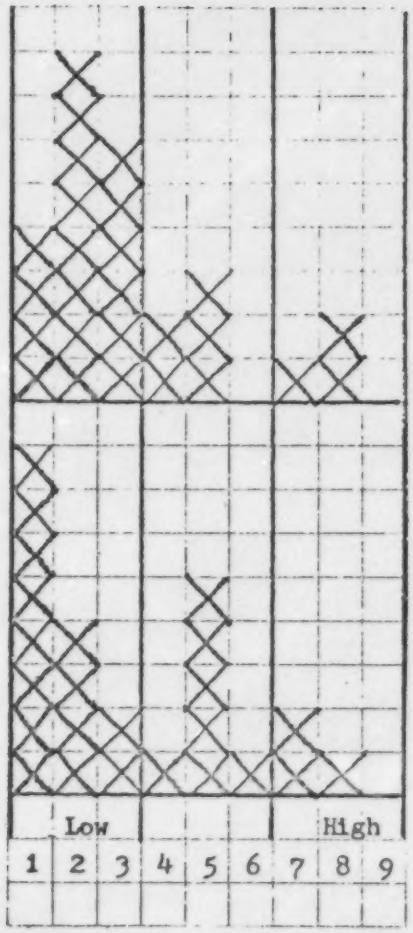


Figure 18

Needs Assessment of "My School"

ow would you rate the degree to which our school makes provisions for:

. Working wtih those who have leadership talents (those who influence others)?

2. Working with those who have performing arts talent (those who are capable of entertaining others)?

3. Working with those who have Kinesthetic talent (those who have athletic, gymnastic. dance, etc. abilities)?

4. Working with those who have manipulative talents (those who have craftsmen, painter, sculptor, sewing, carpenter knitting, weaving, etc. skills)?

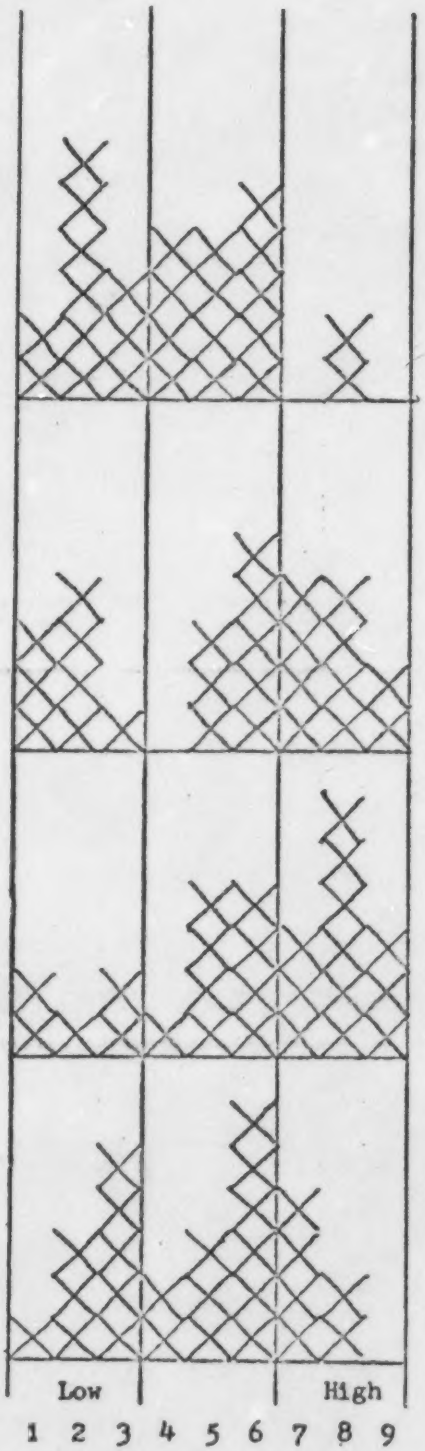


Figure 18
(continued)

5. Working with those who have mechanical, technical, industrial, computational, drafting, machinist, etc skills?

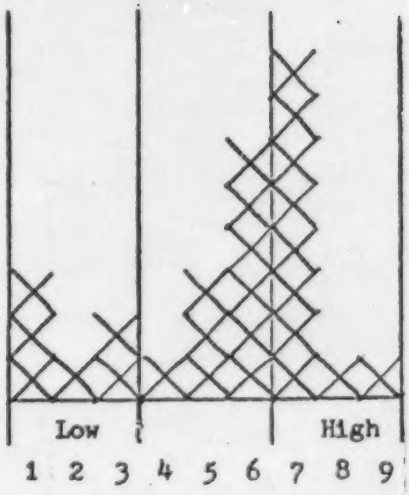


Figure 19

Reward Structures in Respondents' Schools

In terms of recognition, reward, reinforcement, scholarships and general acceptance, how would you rate the attention paid to the following student talents or product behaviors in your school?

1. Grade point maintenance

2. General scholarship

3. Musical talent

4. Artistic Talent (painting, sculpturing, drawing)

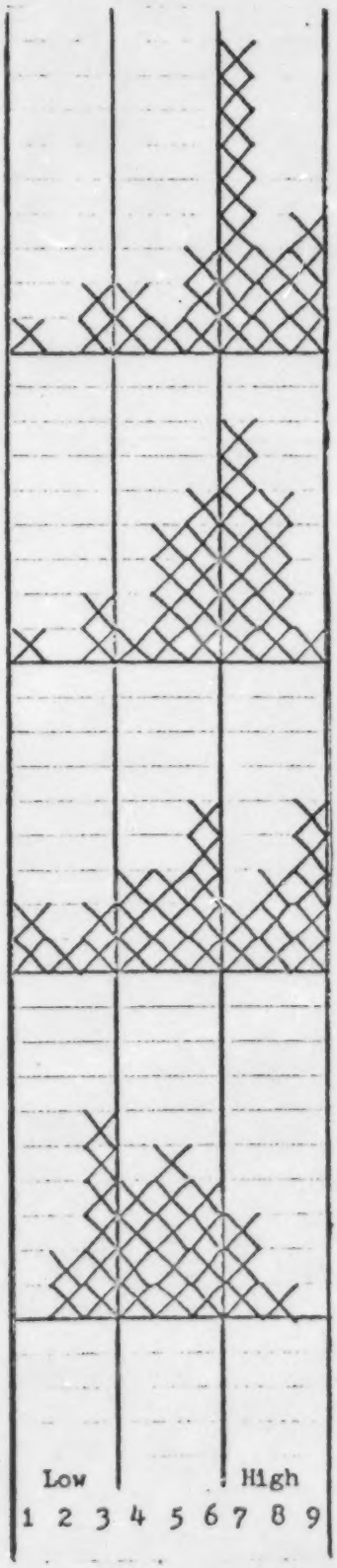


Figure 19
(continued)

5. Literary production

6. Artistic performance or production

7. Craftsmanship (sewing, carpentry, ceramics, etc.)

8. Technical or industrial skills (outstanding work in vocational or technical work)

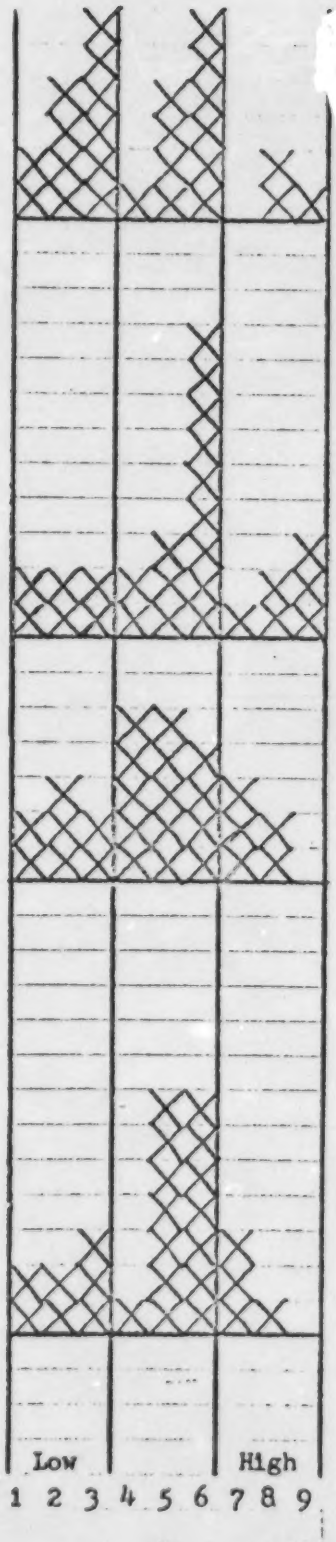


Figure 19
(continued)

9. Scientific accomplishment

10. Dramatic ability

11. Speaking or oratorical skills

12. Leadership in school organizations

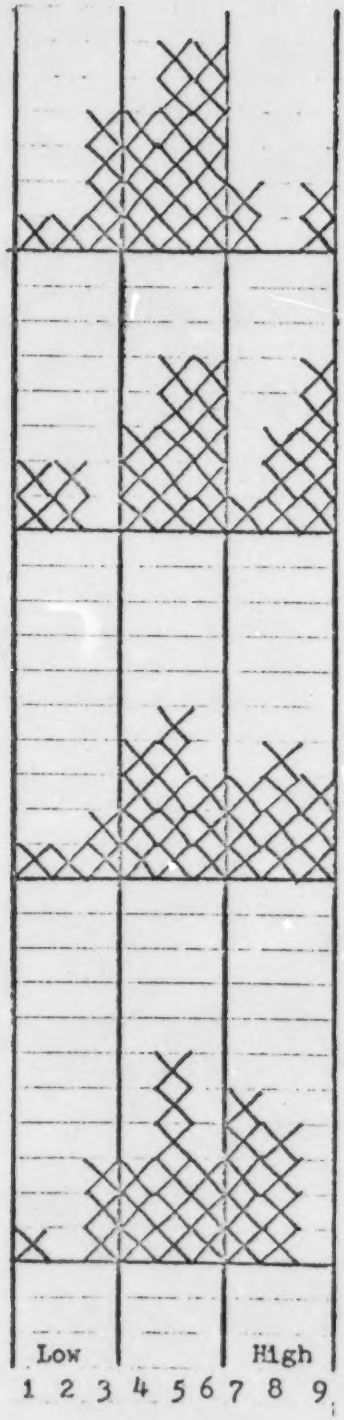


Figure 19
(continued)

13. Leadership in non-school organizations such as church groups, scouting, etc.

14. Community leadership

15. Community service

16. School service

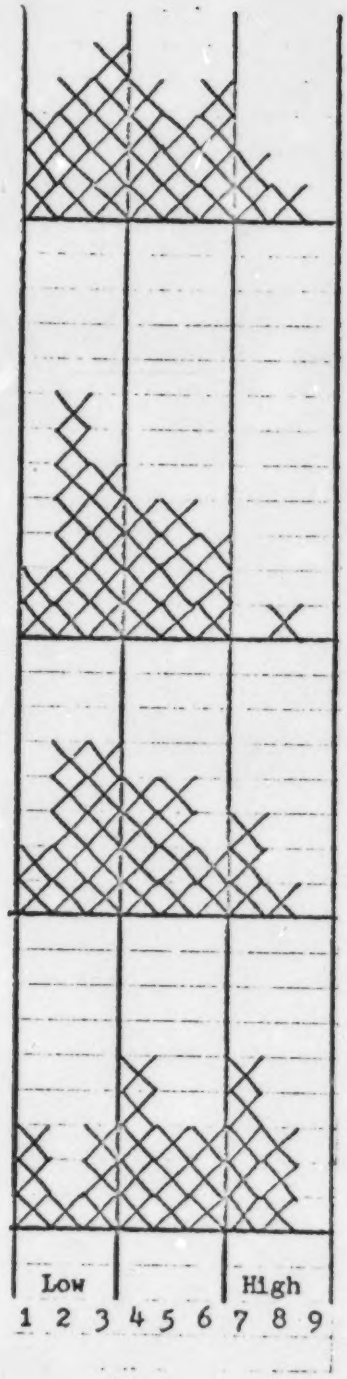


Figure 19
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17. Inventiveness or innovativeness

18. Athletic accomplishment

19. Gymnastic accomplishment

20. Physical appearance (beauty contests, etc.)

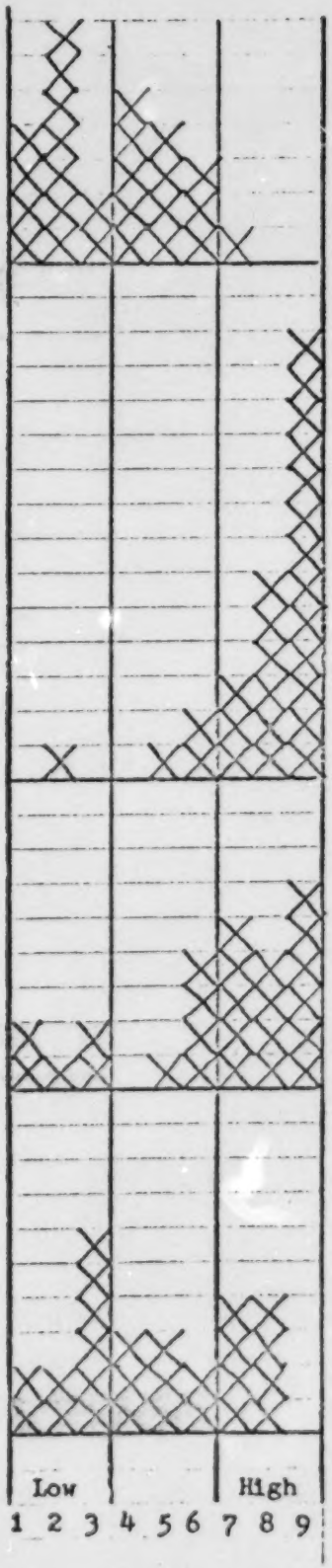


Figure 20

Opinions and Recommendations of MGEMP Participants

1. Too much emphasis is placed upon the academically gifted student and not enough on other forms of gifted or talented achievement.

2. In all probability, those students who are gifted in music, art, athletics, etc. will be gifted or talented in academic concerns.

3. The main purpose of a program for the gifted and talented students is to provide opportunity for meaningful and productive work in that area.

4. It is important that we identify a particular gift or talent with a descriptive adjective such as academically gifted, musically talented, physically gifted, etc.

5. Leadership talents which influence the actions of others in intellectual, social, religious and political ways should be carefully developed because they are often vehicles for other kinds of talent and influencing vast audiences.

6. The school should make a definite attempt to discover the various kinds of giftedness or talents (mental, physical, creative, etc.) and endeavor to provide programs for developing those gifts or talents.

7. Gifted and talented programs should emphasize development of students with known gifts and talents rather than discovering new gifted and talented students.

8. Gifted and talented students should be required to work within the regular school program and develop their gift or talent as an extra curricular activity or over and above the regular program.

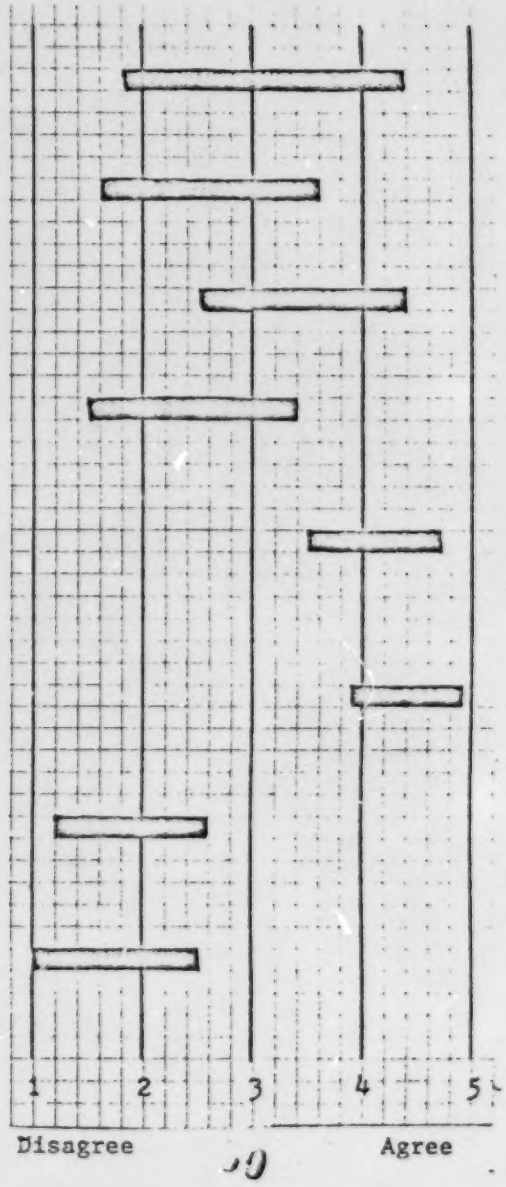
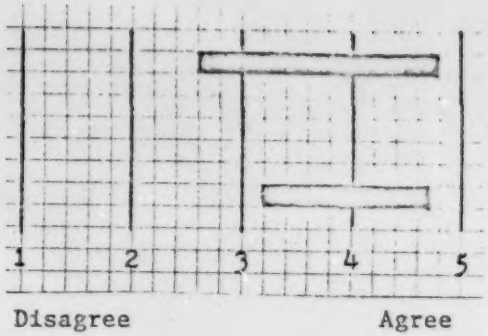


Figure 20
(continued)

9. It is important that the highly gifted or talented student be given a special program that focuses upon his/her superior and unique gift.

10. The highly gifted and talented student should be given release time during the school day to emphasize the development and utilization of his/her giftedness.



Bands represent mean ratings plus and minus one standard deviation.

Figure 21

Priorities of MGEMP Participants

Programs and Services	Rank Order	
	Pre-MGEMP	Post-MGEMP
1. Suppose your school budget was suddenly increased. Where would you recommend the expansion be made?		
Programs for gifted	1	1
Teaching staff	2	2
Library and/or media resources	3	3
Pupil personnel services (guidance, health, etc)	4	5
Core academic programs	5	4
Programs for slow learners	6	6
Extracurriculars (other than athletics)	7	9
Vocational and/or career education	8	8
Staff and administrative support (secretaries, clerical, aides, etc)	9	7
Athletic programs	10	10
2. Suppose your school budget was suddenly decreased. Where would you recommend the cuts be made?		
Athletic programs	1	1
Staff and administrative support (secretarial, clerical, aides etc)	2	2
Extracurriculars (other than athletics)	3	3
Vocational and/or career education	4	4
Pupil personnel services (guidance, health, etc)	5	5
Library and/or medial resources	6	6
Programs for slow learners	7	7
Core academic programs	8	8*
Programs for gifted	9	8*
Teaching staff	10	10

*Tie

for identifying the gifted. Reports in the past have indicated that teacher identification is not always effective and that teachers frequently fail to recognize giftedness in pupils. Hence an attempt was made to determine what factors the MGEMP students employ and/or regard as important in identifying gifted pupils.

The characteristics suggested as factors in the identification of the gifted included family background (#1-3), personal traits (#4), school related behavior (#5-8), social traits or behaviors (#9-13), qualities of persistence (#14-15), and qualities of curiosity (#16-20). The importance which the MGEMP group assigned to each of these characteristics before the MGEMP program are recorded in Figure 22. No assessment was made after the program.

In general, the dimensions described as "persistence" and "curiosity" appear to be veiwed by the MGEMP respondents as more important than the other factors. This information on teacher strategies for identifying gifted pupils which the MGEMP students employ should be compared with the research literature on effective means of identification. The information gained from such a study would suggest topics of concern which might be addressed during the MGEMP program in order to increase the effectiveness with which the MGEMP students contribute to the identification of gifted pupils in their own schools or districts. Such an outcome would be significant for this group of leaders in gifted education.

Conclusions and Recommendations

The MGEMP was designed to prepare educators for responsibilities in the education of the gifted by increasing their knowledge of gifted education and of the alternatives appropriate for meeting the needs of gifted pupils and by providing them with additional experience in working with gifted pupils. The data reported in this evaluation indicate that the program succeeded in helping the participants to achieve these goals.

In addition, there is evidence that the participants are motivated to work with gifted pupils and that they developed a degree of self-confidence in their own ability to assume leadership in gifted education.

Surveys of the participants' attitude and opinions also yielded considerable evidence that there are needs in gifted education in Minnesota which are not being met adequately at the present time. These survey results add important information to the growing body of knowledge of teacher attitudes and stereotypes as these relate to gifted pupils and gifted education and they reconfirm the need for the professional development of specialists in gifted education. The MGEMP can make a significant contribution to meeting this need.

The most crucial measure of the success of the MGEMP will be in the impact which the participants will have on gifted education in the state. These results should be studied on a longitudinal basis. In addition, future MGEMP programs should consider an assessment of the classroom behaviors of the participants before and after the program. Finally, the success of the first year of the MGEMP supports the recommendation that the program be repeated with a new group of participants and/or be extended to provide additional education for the present group.

Figure 22

Teacher Strategies for Identification of Gifted Pupils

Suppose you were responsible for identifying potentially gifted or talented students. How would you rate the importance of the following items in identifying them?

1. Family and home background

2. Financial status of family

3. Has gifted or talented parents

4. Age

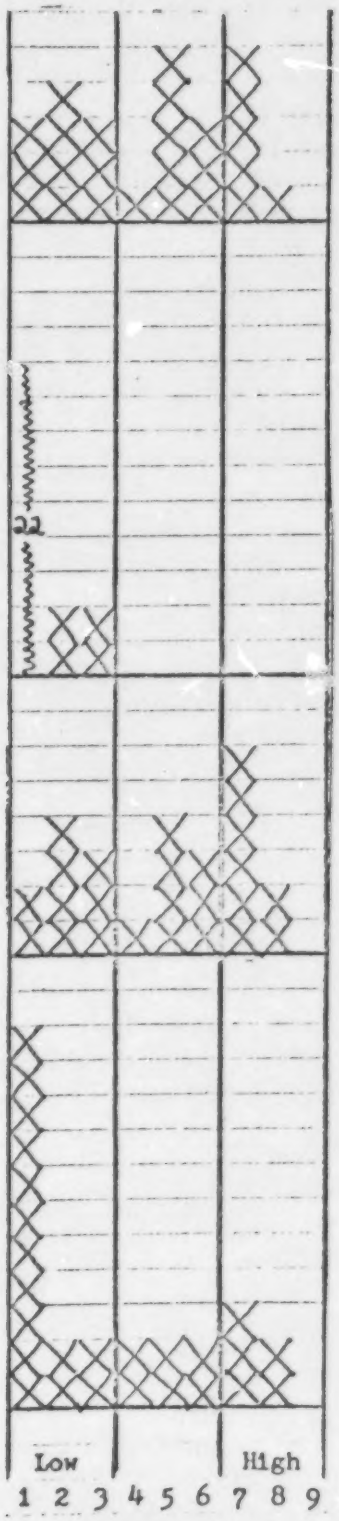


Figure 22
(continued)

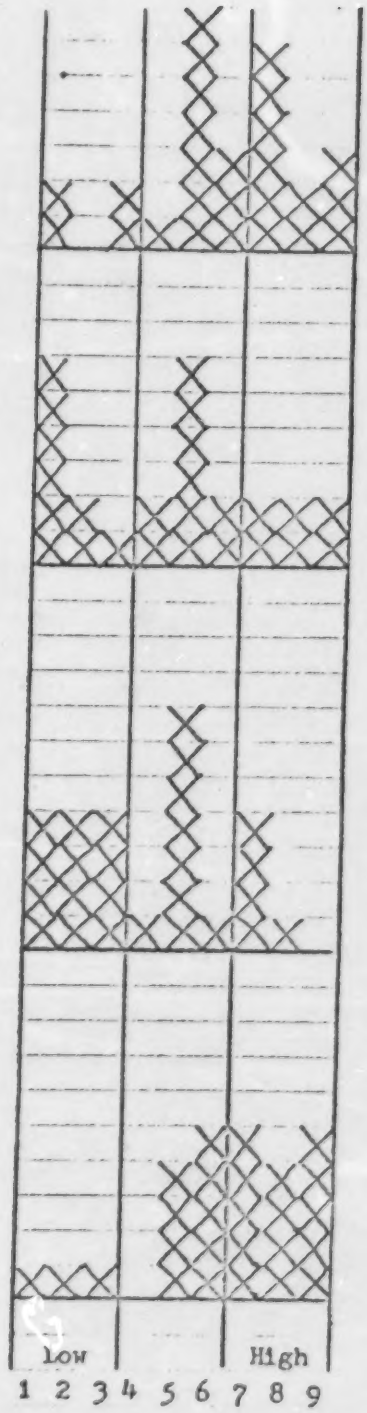


Figure 22
(continued)

9. Concern for the well being of others

10. Pleasant to be with

11. Plays alone or stays apart from the group

12. Is a non-joiner

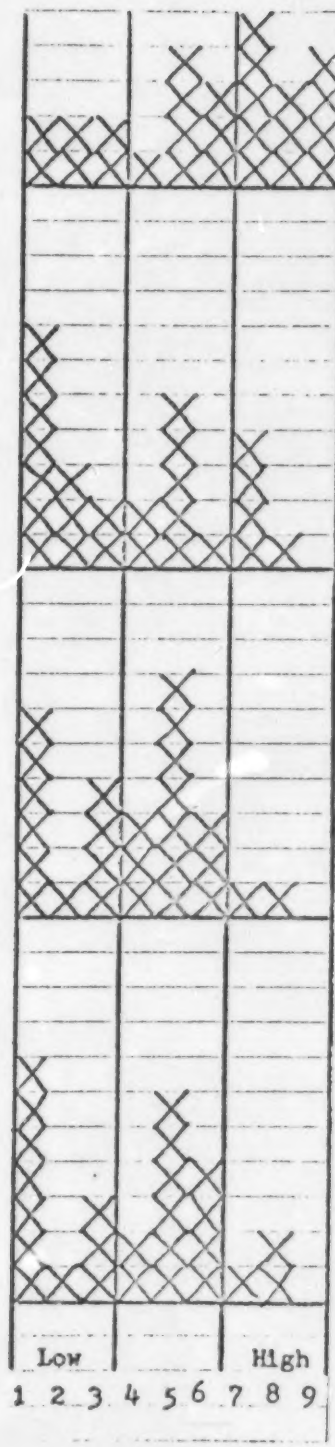


Figure 22
(continued)

13. Likes to be with older people

14. Ability to stay with a problem or concern (stick-to-it-power)

15. Persistent and will follow through

16. Alertness and observant

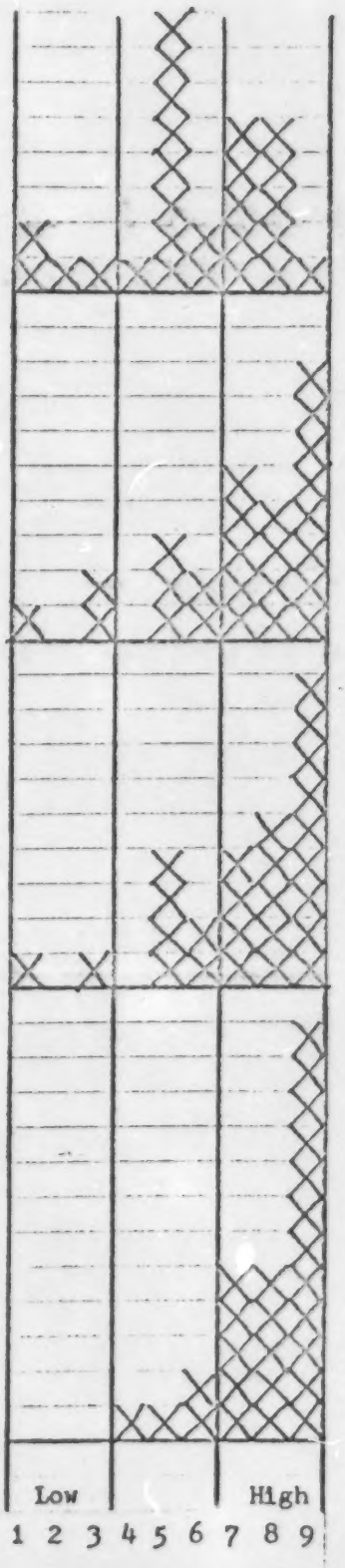


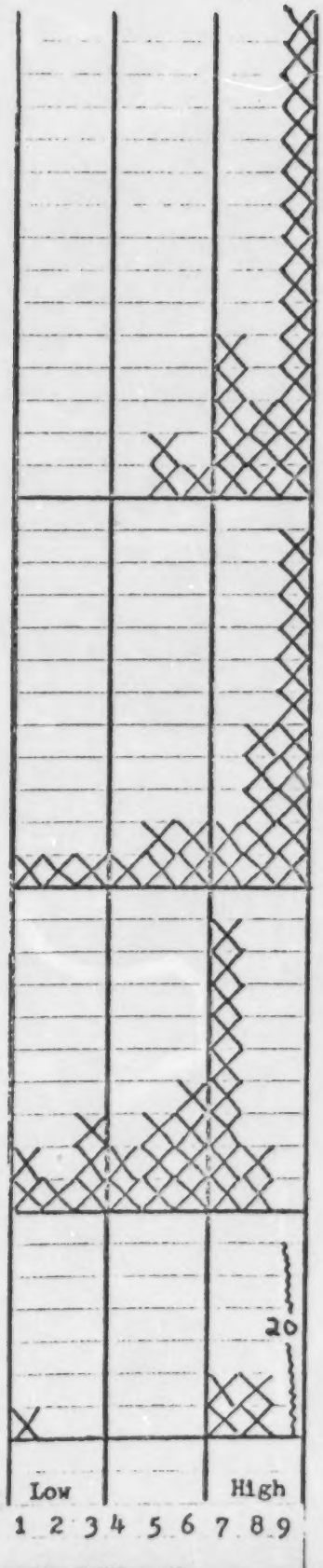
Figure 22
(continued)

17. Responds to challenges

18. Has a wild imagination

19. Daydreams a lot

20. Is curious about many things



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Cohn, Sanford J. "Changing Teachers' Attitudes and Behaviors Toward the Gifted Student." Talents and Gifts, 19(May 1977): 23-26.

George, William C. "Discussion of Barriers to Education of the Gifted; Attitudes and Behaviors." Talents and Gifts, 19(May 1977): 2-4.

Gough, Harrison G. "The Adjective Check List as A Personality Assessment Research Technique." Psychological Reports, 6(1960): 107-122.

Haier, Richard J., and Cecilia H. Solano. "Educators' Stereotypes of Mathematically Gifted Boys." In Daniel P. Keating (ed), Intellectual Talent: Research and Development, Baltimore: Johns Hopkins University Press, 1976, pp 215-222.

Keating, Daniel P. (ed.). Intellectual Talent: Research and Development. Balitmore: Johns Hopkins University Press, 1976.

Solano, Cecilia H. "Teacher and Pupil Stereotypes of Gifted Boys and Girls." Talents and Gifts, 19(May 1977): 4-8.

Stanley, Julian C., Daniel P. Keating and Lynn H. Fox (eds.). Mathematical Talent: Discovery, Description and Development. Baltimore: Johns Hopkins University Press, 1974.

Appendix A
MGEMP Participating Universities
and Representatives

University	Representative
Bemidji State University	Dr. Ralph Magnuson 308 Education-Art Building Bemidji, MN 56601 (218) 755-2775
St. Cloud State University	Dr. James Anderson School of Education St. Cloud, MN 56301 (612) 255-0121
Mankato State University	Dr. Arlyn Kline Box 52 Mankato, MN (507) 389-1215
Moorhead State University	Ms. Virginia Gassner Education Department Moorhead. MN 56560 (218) 236-2216
Winona State University	Dr. Wayne Kirk 139 Gildermeister Hall Winona. MN 55987 (507) 457-2075

Appendix B
MGEMP Staff

Project Directors:

Nancy Mason, former coordinator for the gifted, South Washington County (Minnesota) Public Schools

Joseph Michel, biology teacher, Richfield High School, Richfield, Minnesota

Course instructors:

James W. Anderson, Director, Department of Educational Administration, St. Cloud State University (Resources and Program Organization)

Lorraine Hertz, Gifted Education Coordinator, Minnesota State Department of Education (Curriculum Development)

Daniel P. Keating, Assistant Professor, Institute of Child Development, University of Minnesota (Current Research)

Linda King, Lead teacher, Project Engine, Racine, Wisconsin (Group Dynamics)

Lynn Prom, Teacher-coordinator for the gifted, Moorhead Public Schools Moorhead, Minnesota (Teacher Strategies)

Evaluator:

Peggy A. House, Assistant Professor, Department of Curriculum and Instruction, University of Minnesota

Appendix C
MGEMP Participants

Bemidji State University:

Mary Braaten Staples, MN
Edith Messerich, Karstad, MN
Frances Strommer, Grand Rapids, MN

Mankato State University:

Mary Lou Banholzer, St. Paul, MN
Gary Besel, Cottage Grove, MN
Nadene Herbert, Eagan, MN
Craig Nelson, St. Peter, MN
Karen Rogers, Burnsville, MN
Janet Senst, New Ulm, MN
Linda Simon, Minneapolis, MN
Steven Watson, Minneapolis, MN
Duane Wiedenheft, Mankato, MN

Moorhead State University:

Ronald Aalgaard, Little Falls, MN

St. Cloud State University:

Jeanette Brustad, Mound, MN
Donna Holmes, Anoka, MN
Lucinda Kelly, St. Paul, MN
Donna McCabe, Willmar, MN
Howard Olson, Minneapolis, MN
Joyce Olson, Crystal, MN
Nancy Oyen, Stacy, MN
Joseph Schreifels, St. Paul, MN
Deanna Steele, Grand Rapids, MN
Susan Wandell, New Brighton, MN

Winona State University:

Beverly Anderson, Red Wing, MN

APPENDIX D

COURSE DESCRIPTIONS

MINNESOTA GIFTED EDUCATION MASTER'S PROGRAM

ELEMENTARY PRACTICUM AND CURRICULUM DEVELOPMENT COURSES (7 credits)

Taught by Lorraine Hertz with assistance of Joe Michel who will supervise the practicum students at the Twin Cities Institute and Bea Kranz who will help plan and conduct the Curriculum Development Course.

Practicum will be included for six weeks from June 20 through July 29. (116 hours)
Curriculum Development course will be taught for 36 hours over a seven-week period.

Resources:
Gallagher, James J. Teaching the Gifted Child, 2nd Edition. Allyn and Bacon, Boston, 1975.
Sanders, Norris. Classroom Questions.
Hertz, Lorraine. Suggested Solutions to Problems Teachers Encounter with Gifted Students. 1973.
Renzulli, Joseph. A Guidebook for Evaluating Programs
Various Tests: Stanford-Binet, WISC, Kranz Identification Design, Renzulli Behaviour Scale. Slossen, Calif. Personality, Cognitive Abilities Test, DAT. test, Maryland Scale for Identifying Musically and Artistically Talented Students, etc.

WEEK I

June 14
Class: Orientation to program. Pre-tests and questionnaires will be administered. Discussion of practicum assignments.

Assignment: Read Chapter 1 in Gallagher and Classroom Questions.

June 15
Class: Discussion of Chapter I in Gallagher. In-depth lesson on Bloom's taxonomy, exercises in developing questions, identifying levels of taxonomy in materials commonly used for gifted students.

Assignment: Complete exercises in Classroom Questions on pp. 12-16, 28-30, 38-40, 69-72, 93-95, 121-123, 152-154.

June 16
Class: Discussion of practicum classes and students. Check exercises from Sanders. Register for credit.

Assignment: Read chapter 2 in Gallagher.

June 17

Class: Discussion of identification procedures used in TCITY and MTY; characteristics noted in own experiences and in students at MTY; use of Baldwin Matrix; and Chapter 2 of Gallagher.

Assignment: Study teacher's manuals and tests listed in resources above.

EEK II

June 20

Practicum: Observe class

Class: Discussion of administration, selection, validity, cost, necessity, etc., of various tests

Assignment: Administer and score Renzulli, Kranz, Slossen, Lorge-Thorndike (both verbal and non-verbal) to students if available or to each other. Read Chapter 3 in Gallagher.

June 21

Practicum: Observe class

Class: Discussion of various current programs; administration, identification, teacher(s); curriculum, evaluation. Use High Potential Student Program Design packets developed by Hertz and Martha Birnbaum.

Assignment: Develop three different programs for gifted students

June 22

Practicum: As directed by practicum teacher

Class: Critique programs developed by candidates. Discuss Chapter 3.

Assignment: Rewrite programs. Read Chapter 8 in Gallagher.

June 23

Practicum: As directed by practicum teacher

Class: Critique rewritten programs. Practice Creative Problem Solving Process.

Assignment: Read handouts from Applied Imagination by Osborne.

June 24

Practicum: Use Creative Problem Solving with a small group of students

Class: Discuss CPS experiences. Practice CPS to refine process.

Assignment: Teach CPS process to someone not in MGEMP.

WEEK III

June 27

Practicum: Use CPS process with a large group of students
Class: Discuss CPS experiences with large group and with other person. Practice CPS with class members.
Assignment: Read Chapter 9. Write a lesson plan to use with a small group in own MTY class which stresses creativity.

June 28

Practicum: As directed by practicum teacher.
Class: Discuss chapters 8 and 9. Discuss lessons written which stress creativity. Modify these lessons. Practice lessons with each other. Study Renzulli materials, Mark I, Mark II.
Assignment: Write additional creativity lessons for practicum class. Read handouts on creativity. Read chapters 12 and 13 in Gallagher.

June 29

Practicum: Teach creativity lessons
Class: Discussion of underachieving and culturally different children and recommended teaching methods to use with them
Assignment: Study handouts on contracts.

June 30

Practicum: As directed by practicum teacher.
Class: Presentation on use of learning contracts by Linda Jeska.
Assignment: Make plans to develop contract with a student in practicum class. Read Charles by Shirley Jackson.

July 1

Practicum: Use contracts with underachieving students
Class: Dorothy Lamberton will lead group in a Jr. Great Books discussion of Charles.

Assignment: Have fun over the week-end!

WEEK IV

July 5

Practicum: Follow-up on contracts with students
Class: Discuss contracts and modify present contracts. Presentation on Learning stations by Donna McBrian
Assignment: Read learning station handouts. Prepare materials for a learning station for practicum class.

July 6
Practicum: As directed by practicum teacher.
Class: Critique candidate-prepared learning station materials.
Study commercially prepared materials for gifted student
Assignment: Modify learning station materials prepared by candidates.
Write brief critiques of commercial materials stressing under what conditions they are appropriate.
Read chapter 7 of Gallagher.

July 7
Practicum: Introduce learning station
Class: Bea Kranz will discuss writing curriculum for gifted students.
Assignment: Write 3 lesson plans (primary, upper-elementary, junior high or senior high) in which a standard language arts curriculum is modified for gifted students. Follow recommended format. Read chapter 6.

July 8
Practicum: As directed by practicum teacher.
Class: Critique language arts lessons prepared by candidates.
Discuss social studies alternatives in Anoka materials.
Assignment: Write 3 lesson plans (as above) modifying standard social studies curriculum. (Rewrite langauge arts lessons if necessary.) Read chapter 4 of Gallagher.

EK V

July 11
Practicum: As directed by practicum teacher.
Class: Rewrite social studies lessons if necessary after critique of lessons.
Presentation of math for the gifted by Sally Sloan.
Assignment: Read chapter 5 of Gallagher. Write 3 lesson plans (as above) modifying standard math curriculum.

July 12
Practicum: As directed by practicum teacher.
Class: Critique math lessons.
Presentation by Joe Michel about scientifically gifted students and research skills development.
Assignment: Write 3 lesson plans (as above) modifying standard science curriculum. Rewrite math lessons if necessary.

July 13
Practicum: As directed by practicum teacher.
Class: Critique science lessons.
Presentation by Bob Paul, Coordinator of Art Education, Minnesota State Department of Education
Assignment: Rewrite science lessons if necessary.
Write 3 lesson plans appropriate for student talented in art. Read handout on art for the gifted.

July 14

Practicum: As directed by practicum teacher.

Class: Critique art lessons.
Presentation by Dr. David Price, Coordinator of Music Education, Minnesota State Department of Education

Assignment: Write 3 lesson plans (as above) appropriate for students talented in music. Read music handouts. Rewrite art lessons if necessary.

Make arrangements to xerox 30 copies of all 425 lessons prepared by candidates and assembled into booklets.

July 15

Practicum: As directed by practicum teacher.

Class: Critique music lessons.
Presentation by Charlotte Anderson of New Ulm on teaching reading in the kindergarten.

Assignment: Review the lessons written by candidates. Rewrite music lessons if necessary. Make final changes on the 425 lessons and retype if necessary.

WEEK VI

July 18

Practicum: Discuss the candidate-produced lessons with practicum tch and select 4 to be taught to the practicum class. Teach one of them.

Class: Discuss lessons taught in practicum.
Discuss various administrative adjustments for individual and large and small groups of gifted students at all grades.

Assignment: Read chapters 10 and 11 in Gallagher.

July 19

Practicum: Teach appropriate MGEMP lesson as selected on July 14.

Class: Discuss chapters 10 and 11.
Work on each of the 76 problems in Problems Teachers Encounter with their Gifted Students.

Assignment: Read Chapters 1-5 in Renzulli's book on Evaluation.

July 20

Practicum: Teach a selected MGEMP lesson

Class: Discuss chapters 1-5 of Evaluation.

Assignment: Complete Evaluation.

July 21

Practicum: Teach a selected practicum program.

Class: Discuss practicum experiences.
Presentation on evaluation by Dr. Peggy House, U. of Minn., evaluator of MGEMP.

Assignment: Design an evaluation plan for the MTY program.

July 22

Practicum: As directed by practicum teacher.

VII

July 25
Practicum: Evaluate work in practicum
Class: Discuss evaluation of practicum experience
Critique the evaluation designs.
Assignment: Design a program for gifted students in candidate's school district. Include a plan for evaluating the program.

July 26
Practicum: Continue evaluation of candidates
Class: Discuss evaluation of practicum experiences.
Critique district program and evaluation plans.
Review identification methods.
Assignment: Add an identification system to candidate's school district plans. Write job descriptions for needed personnel for program.

July 27
Practicum: Complete evaluation.
Class: Discuss evaluations of practicum experiences.
Critique identification systems and job descriptions.
Assignment: Make final copies of school district plans.

July 28
Practicum: As directed by practicum teacher.
Class: Make presentation of school district plan.

July 29
Practicum: As directed by practicum teacher.
Class: Make presentation of school district plan.
Final evaluation.

Syllabus for Teaching Strategies -- based on Guilford's Structure of the Intellect

Instructor: Lynn Prom
3 credits

August 4

Hilda Taba Strategies
Leila Anderson, Bloomington

August 8

Lecture: "What is the Structure of the Intellect"?
Assignment: Make a model of S.O.I.

August 9

Review model
Lecture: "Thinking Ability - Cognition"
and Bloom's Taxonomy of Cognitive Domain

Suggested activities for teaching for cognition (Figural, symbolic)

August 10

Group discussion - Sharing and evaluating Cognitive Strategies.
Presentation of semantic and behavioral strategies in Cognitive Domain.

August 11

Group discussion - Sharing and evaluating cognitive strategies.
Lecture "Thinking Ability, Memory"
Suggested activities to improve our own memory.

August 12

Group discussion - Sharing and evaluating memory activities.
Lecture: "Improving Students' Memory"
Suggested activities for memory ability.

August 15

Group discussion - Sharing and evaluating memory strategies.
Lecture: "Convergent Production, Thinking Ability"
Suggested activities for convergent production ability

August 16

Group discussion - Sharing and evaluating convergent production strategies.
Lecture: "Divergent Production Thinking Ability"
Introduction of Williams Model
Suggested activities for divergent production (figural, symbolic)

Syllabus for Teaching Strategies

August 17

Group discussion - Sharing and evaluating divergent production strategies.
Suggested activities for divergent production (semantic, behavioral

August 18

Group discussion - Sharing and evaluating strategies
Lecture: "Evaluation Thinking Ability"
Suggested activities for evaluative thinking

August 19

Group discussion - Sharing and evaluating strategies for Evaluative Thinking.
Wind up -- Evaluation of the course, "Teaching Strategies based on S.O.I."

March 20, 1977

MINNESOTA GIFTED EDUCATION MASTER'S PROGRAM

MEMO from Lorraine Hertz

On October 9 and October 23, 1971 forty-two outstanding Minnesota educators who have had extensive experiences teaching gifted students or graduate students preparing to teach gifted students developed a summary of competencies that teachers of gifted elementary students should develop in their pre-service education. This summary is attached.

In designing the summer courses for the Minnesota Gifted Education Master's Program, this summary was used as a guideline. The syllabi prepared by Lorraine Hertz and by Lynn Prom are attached. In order to include every competency listed in the attached summary it is recommended that those teaching the other courses include the following components:

I. CURRENT RESEARCH (1 credit)

- A. Significant research studies
- B. How to evaluate research
- C. Reputable sources of research studies
- D. How to put research findings into practical use

II. RESOURCES AND ORGANIZATION OF GIFTED PROGRAMS (2 credits)

- A. Parent organizations
- B. Private and public funding sources
- C. Writing of proposals
- D. Staff resources
- E. Community resources
- F. Public-relations techniques
- G. Dissemination of materials
- H. Teacher training
- I. Teacher supervision
- J. How to communicate with parents
- K. Preparation and presentation of speeches

III. THINKING MODELS (1 credit)

- A. Hilda Taba methods

IV. GROUP DYNAMICS (1 credit)

- A. Skills in utilizing group dynamics
- B. Establishing relationships with staff members
- C. Establishing relationships with students
- D. Establishing relationships with parents
- E. Becoming an effective administrator
- F. Developing skills in guidance with students

Studies in Gifted Child Education
D. Keating 1 credit
Tuesday-Friday, 12:30 - 3:30 p.m. June 14-17, 1977

Readings

Keating, D.P. (Ed.) Intellectual Talent: Research and Development. Baltimore: Johns Hopkins University. 1976.

Oden, M.H. Forty-year follow-up of the Terman Gifted Group. Genetic Psychology Monographs, 1968, 77.

Schedule of Meetings

June 14 Meeting #1: Background; Terman study; other earlier studies; current research prospectus.

June 15 Meeting #2: Study of Mathematically Precocious Youth; Study of Verbally Gifted Youth; Intellectually Gifted Child Study Group; current basic research.

June 16 Meeting #3: Consuming research studies intelligently; use of journals and research sources.

June 17 Meeting #4: Translating research and development into classroom use; classroom evaluation issues.

Basis for Evaluation

Students will complete two short (3-5 pp) papers on topics involving research on gifted children. Specific topics will be assigned during the class.

Course Designation:

Department:
Course number:
Course title: Group Dynamics
Quarter credit value: 1 credit

Course Description:

Group dynamics will be structured in a series of experiential experiences. The course focus will be on the skills of blending both cognitive and affective learning processes. Curriculum content will include group dynamics skills, assessment and designing positive classroom experiences, relationship building exercises and leadership models.

Goals:

1. Participants will explore experiential learning models.
2. The participant will develop an understanding of structures
3. Participants will establish relationship building techniques to be used in their specific teaching position.
4. Participants will improve leadership style and skills.

Activities of Participants:

1. Participation in structured group dynamics experiences.
2. Listen to staff lectures and view a video tape.
3. Participate in the assessment and affective classroom experiences.
4. Develop group leadership strategies for use in the community school and classroom.
5. Adapt commercially produced activities to specific teaching techniques.
6. Demonstration:
   Each participant will share their "action play" for group responses and critique.
7. Course Evaluation:
   Participants will complete the course evaluation form and offer verbal input regarding the value of the course.

Texts, Materials and Resources:

1. Buscaglic, Leo F., "Love" Video tape 1976
2. Johnson, David W. and Johnson, Roger T., "Learning Together and Alone, Cooperation, Competition and Individualism" Prentice Hall, Inc. Englewood Cliffs, New Jersey, 1975
3. Johnson, David W. and Frank P., "Joining Together, Group Theory and Group Skills," Prentice Hall, Inc. Englewood Cliffs, New Jersey, 1975
4. Glass, Raymond M., Griffin, James B., "A Manual on Affective Education for the In-Service Elementary and Special Education Teacher, " (Pilot Draft) Center for Innovation in Teaching the Handicapped, Indiana University.

APPENDIX E

Adjectives comprising the favorable and unfavorable scales on the MACL*

Favorable

active
adaptable
adventurous
affectionate
alert
ambitious
appreciative
artistic
attractive
calm
capable
charming
cheerful
clear-thinking
clever
confident
conscientious
considerate
cooperative
courageous
curious
dependable
efficient
energetic
enterprising
enthusiastic
fair-minded
foresighted
forgiving
frank
friendly
generous
gentle
goodlooking
good-natured
healthy
helpful
honest
humorous
imaginative
independent
industrious
insightful
intelligent
interests wide
inventive
kind
logical
loyal
mature
natural
optimistic
organized
original
patient
pleasant
poised
rational
realistic
reasonable
reliable
resourceful
responsible
self-controlled
sincere
sociable
stable
sympathetic
tactful
thoughtful
tolerant
understanding
versatile
warm
wise

Unfavorable

affected
aloof
apathetic
argumentative
arrogant
bitter
boastful
bossy
careless
coarse
cold
complaining
conceited
cowardly
cruel
cynical
deceitful
disorderly
distrustful
dull
egotistical
evasive
faultfinding
fickle
foolish
frivolous
fussy
gloomy
greedy
hard-hearted
hostile
immature
impatient
indifferent
infantile
interests narrow
intolerant
irresponsible
irritable
loud
moody
nagging
obnoxious
opinionated
prejudiced
prudish
quarrelsome
quitting
rattlebrained
resentful
rigid
rude
sarcastic
self-centered
self-pitying
selfish
shallow
shiftless
show-off
slipshod
snobbish
spineless
stingy
sulky
tactless
thankless
touchy
undependable
unfriendly
unintelligent
unkind
unscrupulous
vindictive
weak
whiny

*Adapted from the Adjective Check List by Gough (1960).